INGlish English

The progressive construction in learner narratives.

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Abstract

The topic of the present thesis is the English progressive construction BE + V-*ing*; more specifically, as used by young L1 Norwegian learners of L2 English and same-age native-speakers. The study is form-based and thus explores the developmental path from non-target-like use of the *-ing* form to (more) target-like use of the progressive as a complete – and meaningful – construction. To this end, 165 learner narratives were collected using a website constructed to this end; 89 written by Norwegian L2 learners and 76 by L1 speakers of English. The learners were selected from two age groups, around 11 (N=83) and 15 (N=82), and texts written by the L2 learners were assessed to be at proficiency levels A1 (N=12), A2 (N=51), B1 (N=25) and B2 (N=1) of the Common European Framework of Reference for Languages (CEFR).

The thesis is theoretically grounded in the framework of Cognitive Linguistics (e.g. Langacker 1987, 1991, 1999, 2008a, 2009, Taylor 2002, Croft and Cruse 2004, Radden and Dirven 2007), which comprises construction grammar (e.g. Goldberg 1995) and related learning theories (e.g. Tomasello 2003a, Robinson and Ellis 2008). In particular, this work draws on Slobin's (1987b, 1996) thinking-for-speaking (TFS) theory, which states that language users select ways to represent a situation based on the linguistic tools available in their first language. Such TFS patterns are difficult to restructure in a second language, but it is possible, as found in studies and reference works that draw on Slobin's theory (e.g. Jarvis and Pavlenko 2008, Pavlenko 2011b, Athanasopoulos 2011).

In addition to more general language learning theory, one hypothesis specifically targeting the learning of tense/aspect morphology is addressed in the present work. This is known as the Aspect Hypothesis (AH), which posits a strong tie between the semantic category *activities* and progressive aspect: both L1 and L2 learners have been shown to display sensitivity to this connection early on, and only later expand the use of the progressive to the categories *accomplishments* and *achievements*, while refraining from use with *states* altogether. The data in the present study are analyzed with respect to these semantic categories, as well as the temporal category TENSE, the non-temporal category ING (the *-ing* form in non-finite contexts), and the extralinguistic categories L1 (Norwegian or English), age, gender and proficiency level. The analysis is quantitative and aims to find if differences in these variables lead to different frequencies in the use of the progressive; statistical significance is tested by

means of a multivariate regression analysis. Finally, a more detailed semantic analysis is performed, to find out whether various previous claims about the semantics of the progressive have any explanatory power when it comes to learner usage in the dataset in this study. Traits that are said to be characteristic of verb types used with the progressive are duration, atelicity, agentivity, and the fact that they refer to observable situations. Such visual salience is seen as a very important characteristic in Durst-Andersen (2000), who claims that situations are perceived as still or moving pictures by language learners and that the progressive favours the latter.

The above speaks to a universal learning path when it comes to progressive aspect, as do findings and theories related to the frequency and salience of the progressive (e.g. Ellis 2002, Goldschneider and DeKeyser 2005), as well as well-known studies on acquisition order (e.g. Brown 1973, Dulay and Burt 1974a). However, recent years have seen a rising interest in the role of L2 learners' first language (e.g. Jarvis and Pavlenko 2008) and even in studies that mostly point toward a universal learning path, there is evidence of L1 influence on a more detailed level (e.g. Collins 2002, 2004b, Rocca 2007, Rohde 1996). A chapter section is therefore devoted to a partial contrastive analysis of Norwegian and English, in order to establish potential candidates for transfer. The analysis also seeks to detect any such transfer, based on the methodological criteria proposed by Jarvis (2000).

The main findings of the present study can be summarized as follows: the single greatest predictor of frequent use of the progressive in a learner narrative is the presence of activity verb phrases. Other significant factors are L1, age, and proficiency level and tense, but none of these matches activities in explanatory power. Moreover, learners at proficiency level B1 and above master the use of the progressive construction on a level comparable to that of same-age native speakers; this includes the relative frequencies of the progressive and use of *-ing* in other constructions than the progressive. Their usage also bears witness of a gradual spread from more to less progressive-like constructions, while less proficient learners still struggle to use auxiliary BE. Finally, the semantic perceptions change with age and proficiency level, from an initial focus on observable or otherwise experienced events – what I call *referential salience* – via the expression of spatial as much as temporal extension, to giving telicity and agentivity more prominence.

A chapter that summarizes and discusses the findings against the theories presented in the first part of the work follows the analysis, before the thesis ends with some concluding remarks. Among other things, suggestions are made as to how the findings in this study may inform pedagogical practice, and which areas of further research should receive attention.

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List of abbreviations

L1 – first language

L2 – second language

FLA – foreign language acquisition; in some sources, first language acquisition

SLA – second language acquisition

IL – interlanguage

TL – target language

VP – verb phrase

PROGRESSIVE – the dependent variable +/- progressive

PROG – the variant (BE +) V-*ing*

NON – the variant nonprogressive aspect

ING – the *-ing* form in other functions than lexical verb in a finite clause

AH – the Aspect Hypothesis

ACT – the lexical aspect category 'activity'

ACC – the lexical aspect category 'accomplishment'

ACH – the lexical aspect category 'achievement'

STA – the lexical aspect category 'state'

CL – cognitive linguistics

TFS – thinking for speaking

N11 – Norwegian informants, age 10-11

N15 – Norwegian informants, age 15-16

A11 – American informants, age 10-11

A15 – American informants, age 14-16

CEFR – The Common European Framework of Reference

A1 – (informants at) the lowest CEFR proficiency level

A2 11 – informants at the second lowest CEFR proficiency level, from group N11

A2 15 – informants at the second lowest CEFR proficiency level, from group N15

B – informants at the intermediate CEFR proficiency levels, B1 and B2, from group N15

1 INTRODUCTION

1.1 Aim and scope

At first glance, a project targeting the English progressive may seem like kicking in open doors. Numerous empirical studies as well as theoretical accounts have already been produced in order to describe and understand this construction: it has been considered both synchronically and diachronically; within different theoretical paradigms; from native-speaker and second-language-learner perspectives; with regard to its semantic distribution, and so on. In short, a great deal of knowledge about the progressive has already been obtained. How, then, can yet another study contribute?

The present project aims to track the development of the progressive as a firmly entrenched *construction* in learner language, as opposed to looser elements that may or may not be combined. In this endeavour, the project draws on the theoretical framework of Cognitive Linguistics (see e.g. Langacker 1987, 1991, 1999, 2001, 2008b, 2009, Goldberg 1995, Croft and Cruse 2004, Radden and Dirven 2007), as well as general theories of language learning (e.g. Tomasello 2003a, Jarvis and Pavlenko 2008) and research specifically targeting the learning of tense-aspect morphology (e.g. Bardovi-Harlig 2000, Giacalone-Ramat 2002, Housen 2002a, b, Rocca 2002, 2007). As the latter type of research stresses the importance of the *semantics* of verb phrases that readily combine with the progressive construction, the present study will also devote much attention to this topic. The primary subject group is second language (L2) learners, but native-speaker groups are also considered, chiefly as reference groups, but also to detect potential development in first language (L1) usage as well.

The progressive is a complex construction both because it is composed of several elements (auxiliary BE + lexical verb + *-ing* suffix) and because its usage relies on semantic as well as contextual factors. Ever since Selinker's (1972) seminal article on *interlanguage*, there has been an awareness that each learner's language constitutes its own system, not to be regarded as a faulty version of the target language, and that this system changes over time. Bley-Vroman (1983) warns against blindly holding learner usage up against target systems, as such a comparison may obscure important elements of the learners' own systematic development. The aim of this study is then to chart such a *system* – or lack of such – in learner production and to see how this system changes over time. Linguistic units are rarely learned in isolation, one after another; rather, as they are encountered together, their learning is mutually dependent –

they act as contextual cues for each other. This means that many potentially influential factors should be considered, as they are part of this fluctuating system. In theory, all other linguistic elements may interact with the progressive and thus influence usage, but this study is mainly limited to certain ones that have previously been shown to be relevant. Linguistically, there are several other features that carry similar types of information: the progressive is associated with the present tense, as they both describe situations as essentially ongoing; adverbials may express temporal contour in the same manner as the progressive; and in the realm of semantics, certain types of verb phrases are more compatible with the progressive than others. All of these may be considered in an outline of systematic learner language, but the present study is mainly limited to the context of the *verb phrase*, i.e. the verb and its predicate. However, since the study is *form* focused, instances of the *-ing* form that do not function as part of a verb phrase are also included.

In addition, there are several extralinguistic factors that are known to influence the learning of a second or foreign language. Of these, age, gender and first language (L1) have for various reasons been chosen for this study (see chapter 4). The study is set in a Norwegian context and one aim is thus to inform pedagogical practice in Norway; the learner groups' L1 background is therefore Norwegian and this fact sets certain limits to the choice of other variables, as Norwegian schools put great emphasis on the teaching of English and all follow a national curriculum, which then leads to quite homogeneous formal learning situations as regards age as well as amount and type of input.

Finally, most studies of second language learning see the need to compare results to some kind of what Sylviane Granger[1] tentatively terms 'reference variety'; some high-proficiency variety of the target language, usually native-speaker groups. The present study wishes to exert particular caution when it comes to comparisons, and groups of young native speakers have therefore been chosen as the reference variety, so that the object of comparison is the type of language one can reasonably expect from young language users, rather than the more advanced language of adults or grammar book descriptions. This perspective secondarily allows for a parallel study of the development of both first and second language learners with regard to a specific construction.

In sum, the objectives of this study are threefold: to outline a partial learner language system; to chart the development of such a system over time; and to study learner and native speaker development in parallel. The study will seek to give a partial answer to the following

[1] Keynote lecture at the Learner Corpus Research (LCR) conference, Solstrand, September 27, 2013.

questions: How do L1 Norwegian learners of L2 English go from learning the *-ing form* to learning the progressive *construction*? Specifically, how do the usage patterns of L1 Norwegian learners of L2 English develop as compared to those of L1 speakers of English? To answer these questions, the usage patterns will be investigated in terms of form, frequency and semantic contexts.

1.2 Why the progressive?

The progressive construction was chosen for this study as it is a grammatical structure that has no formal counterpart in Norwegian; the Norwegian language does not express aspectual distinctions morphologically. In learning English as an L2, Norwegians must therefore learn as well as automatize an obligatory distinction they are not used to paying attention to, let alone expressing. There are, however, Norwegian lexical constructions that are used for aspectual specification (see section 3.3.4); thus, the progressive does not represent something that is conceptually entirely foreign to the learners. Learning this construction is therefore a challenge; interlingual identification is possible, but not immediately accessible. As Jarvis and Pavlenko (2008: 83) point out, interlingual identification can take place at a linguistic, semantic, and/or conceptual level. The learners may then see the progressive either as a completely novel construction or make an interlingual identification at one of these levels. A study of the progressive construction thus allows for interpreting the results in light of two major theoretical strands of second language acquisition theory:

1. The role of the L1 is insignificant. Instead, learners from all L1 backgrounds learn the L2 in a similar manner, going through the same stages.
2. The learner's first language plays a major role in how language learning progresses. It will therefore be possible to find evidence of both positive and negative transfer from the L1.

The first view was spurred on by studies that showed how native speakers and L2 learners acquire certain linguistic features in the same order (Brown 1973, Dulay and Burt 1974a, 1974b). In more recent years, however, scholars have taken a great interest in the effects of the learners' L1 and how to identify such effects (e.g. Kellerman 1983, 1997, Odlin 1989, Jarvis 2000, 2011, Jarvis and Pavlenko 2008). While the issue of which view best describes the learning process remains unresolved, it is no longer possible to claim that L1 influence should be ignored.

Learning English, Norwegians must learn a system of verbal morphology that is in many ways similar to that of their L1, but far from identical. The tense systems of the two languages are largely comparable, including the use of the perfect construction, but as Norwegian does not have a grammatical progressive aspect, the learners must understand how this construction fits into to the English system of temporal expression. In other words, to the extent that they see fit to transfer knowledge from their L1 system, they must find out how to alter this system in order to include this "new" feature and adapt to target language usage. The question then is whether learners indeed seem to draw on their existing knowledge of temporal expression and whether evidence of this can be traced in their L2 production.

Conversely, if the results do not point in the direction of interlingual identifications, this may be taken as support for the view that L2 learning follows natural developmental sequences that are not language specific. The progressive is claimed to be one of the first constructions that both L1 and L2 learners acquire (e.g. Brown 1973, Dulay and Burt 1974a), and Kleinmann (1977: 101) and Jarvis and Pavlenko (2008: 141), among others, suggest that this construction is easy to learn and conceptualize. In addition, a large body of research has shown that verb morphology seems to be learned in a universal manner by L1 and L2 learners alike, on the basis of the semantic content of the verb phrase, according to what is known as the Aspect Hypothesis (e.g. Bardovi-Harlig 1998, 1999, Bardovi-Harlig 2000, Housen 2002b, Robison 1995, Rocca 2002, 2007, Collins 2002, 2004a, Housen 2002a). This is elaborated on in chapter 3.

On the other hand, there are numerous reports that L2 learners do not use the progressive in a native-like manner at all; notably, beginner-level learners tend to overuse this form. Dulay and Burt's studies use 'suppliance in obligatory context' as the criterion for functor[2] acquisition and overuse would not be factored in by this measure, a criticism that Goldschneider and DeKeyser (2005: 29) point out. The reported overuse, however, seems to be largely anecdotal (teachers' impressions), cf. Johansson and Lysvåg (1987: 158), who speculate that this may be attributed to too much emphasis on this form in teaching materials, a view that Römer (2005) shares. Moreover, reports of overuse tend to come, as far as I can gather, from studies involving L1 speakers of Germanic languages (e.g. Kellerman 1997, Housen 2002b, Axelsson and Hahn 2001); data from e.g. Kleinmann (1977), Lightbown (1983), Robison (1995) and Bardovi-Harlig (2000), involving speakers of e.g. L1 French, Spanish, Japanese or Arabic, do not seem to reveal any conspicuous overuse. This is not to say that overuse is not a

[2] An umbrella term Dulay and Burt use to encompass several categories of grammatical markers, including inflectional morphemes and determiners, cf. section 3.4.

real issue, only that the magnitude of the phenomenon is not well documented and quantified[3]. Axelsson and Hahn (2001) also refer to this problem, but theirs is a study of advanced Swedish and German learners of English and in this group overuse seems to be marginal, bordering on non-existent. Among other things, this study will then deliver concrete evidence of the extent of young learners' use of the progressive.

In addition, some of the Aspect Hypothesis studies (e.g. Collins 2002, 2004a, Rocca 2002, 2007) reveal differences in results that may be attributed to the learners' L1 background and it is thus reasonable to assume that acquisition of verb morphology might be an interaction between larger universal patterns and L1 influence. The present study will indicate whether this is also true of Norwegian learners.

Last, but not least, there is the question of whether learners understand the progressive as the complete construction BE + V-*ing*, or simply as "the *-ing* form", as Norwegian teachers tend to call it. It is well known that learners often omit the auxiliary and use only V-*ing* (e.g. Bardovi-Harlig 1998, Berman and Slobin 1994, Dulay and Burt 1974a). This study therefore seeks to investigate the route learners take towards understanding the progressive as a complex construction rather than a simple form. In order to do so, all tokens of *-ing* have been extracted from the dataset and categorized as either progressive or one of various other constructions. The distribution of the *-ing form* in different *functions* will further inform us of the learners' understanding of its use in English. This is elaborated in chapter 4.

1.3 English in Norway

Like in so many other countries, English is the dominant foreign language in Norway. It is taught in all schools from the very start; that is, from first grade on, starting at the tender age of six. Unlike most other foreign languages, English quite uniformly enjoys high prestige in Norway and high proficiency is generally considered a positive thing; other foreign languages are often regarded as difficult, inaccessible and theoretically challenging, while English is seen as easy, necessary and relevant. There are ongoing discussions as to the status of English as a foreign language, where some claim that it should rather be seen as a second language. Interviews with young learners reveal that they make a clear distinction between English and foreign languages and this has lead Simensen (2005: 61) to make the rather radical claim that English to some extent is learned as a second native language, where learning depends as much

[3] For an exception, see Tingstad's (1999) master thesis on the acquisition of English verb morphology by Norwegian learners. However, this is a rather small study specifically designed to elicit a large variety of morphological endings in obligatory contexts and may therefore differ from learners' free production.

on authentic-language input as on formal training, if not more. However, this quasi-naturalistic learning form does not necessarily lead to native-speaker competence, and certainly not in all domains, as pointed out in Hellekjær (2016), based on an investigation of the use of English and other languages for occupational purposes. He finds that good English skills are more or less taken for granted in Norway, but in reality many Norwegians find themselves in positions where they need more specialized language skills than their education has provided them with. In addition, their English is not always adequate in social contexts either, where they may be perceived as awkward, at best, as they rely on the kind of informal English they have been exposed to through television (ibid.: 8). On this background, there is clearly a need for a more structured approach to English learning than the one Simensen describes and Hellekjær criticizes, however successful it may be in terms of informal communication skills. Part of what is needed is knowledge about how learner English develops compared to native language, and to chart the areas where more focused instruction is necessary in order to lift learners to a level that meets the requirements of formal interaction in occupational settings. The present study is an attempt to contribute in this respect.

1.4 Cognitive Linguistics and language acquisition

Cognitive Linguistics (CL), and in particular Cognitive Grammar, has been chosen as the theoretical framework for the present study for several reasons. Langacker lists "three basic features of Cognitive Grammar […] that suggest its potential utility as a basis for language *instruction*: the centrality of meaning, the meaningfulness of grammar, and its usage-based nature" (2008a: 66, my italics); these features are no less useful when it comes to understanding language *acquisition*. When learners face the challenge of acquiring language items, whether it is in their L1 or L2, their task is to find the *meaning* behind the linguistic *form*. In Cognitive Grammar, form and meaning are the two components of a *symbolic unit*, with a phonetic and a semantic pole. Even grammatical constructions are considered such symbolic units (see section 2.1.4), as the above quote indicates. Learners must find a way to wed form and meaning, and Cognitive Grammar holds that meaning is *negotiated* through use. This perspective is a good starting point for investigating the development of form-meaning pairing in learner language, where the meaning of a form is acquired through exposure and use, until the learner has made an abstraction that leads to a schematic understanding: an understanding that may or may not coincide with adult native-speaker language.

CL takes all aspects of meaning into consideration, including learners' bodily experiences with the physical world in which the referent is found, since the view is that "meaning derives from embodied human experience" (Langacker 2008b: 28). This is particularly relevant when dealing with young learners, whose ability to think abstractly is not fully developed, and who therefore are more likely to verbalize concrete experience than abstract one. Such a focus on human experience is in line with several learning theories that stress that experienced categories are easier to acquire than abstract ones (see chapter 2).

In addition, CL acknowledges that categories are continuous, rather than discreet (ibid.: 13), and this fundamentally affects the way the categories investigated in this study are dealt with. The view here is that there is no clear boundary between the *-ing* form and the progressive construction in developing learner language, and neither is it possible to clearly delimit the lexical aspect categories that make up one of the independent variables in this study. Therefore, a more detailed semantic analysis is added to the coarse-grained one that draws on previous studies.

Finally, CL relies on the notion of *construal*, i.e. "the speaker s choice among alternative ways of conceptualising and describing a scene" (Radden and Dirven 2007: 337)[4]. The choice of aspectual form is an important form of construal in English, as it distinguishes between what Langacker terms 'maximum scope' and 'immediate scope' of a viewing frame (e.g. Langacker (2001) ;see section 3.2); the progressive thus features prominently among the conceptual tools available for construal in the English language.

1.5 Theory-driven or data-driven research?

The approach chosen in this study is in part inspired by Römer (2005), who makes a distinction between *corpus-based* and *corpus-driven* linguistics. Her claim is that even linguistic analyses that draw on empirical data often "do not put the corpus at the centre of their research but see it as a welcome tool which provides them with frequency data, attested illustrative examples, or with answers to questions of grammaticality or acceptability" (ibid.: 9). She calls linguists that use corpora in this manner "instrumentalists", as the corpora only serve instrumentally as one type of research strategy, but are not seen as the primary resource. The result is that the data are sorted into pre-existing categories and used to test hypotheses or exemplify theories, rather than challenge old ideas and form new theories or alter old ones (ibid.). The research is

[4] For a detailed outline of what constitutes construal, see (Langacker 2008b: 55-89).

thus *based* on corpora, but not guided by them. Corpus-*driven* linguistics, as Römer defines it, puts the corpus in the front seat and tries, as far as possible, to approach the data without letting existing frameworks or theoretical descriptions influence methodological choices or analyses. However, she acknowledges that it is difficult to conduct research in a theoretical void, and probably not desirable either (ibid.: 19). If nothing else, it is convenient to rely on existing terminology and to compare strategies and results with previous studies.

While Römer has conducted a large-scale study of the progressive as it is used in native-speaker corpora of spoken English – the British National Corpus and The Bank of English – the present study relies on a small set of learner and native-speaker texts, perhaps too small to be labelled a 'corpus'. It also represents just one L1 background, one genre and only written production. As such, the data used here are not suitable for formulating new theories that are generally applicable to our understanding of the progressive, as is one aim of Römer's study. The dataset is also too limited to enable me to deduce a new theory of learning. Nonetheless, the nature of learner data is often such that it defies existing theoretical accounts and an open-minded approach may yield insights that cannot be predicted from existing theory. Bley-Vroman (1983) warns against assuming that established patterns and categories can always be used to adequately describe interlanguage systems in what he calls the *comparative fallacy* (see section 3.4.2) and part of the analysis in this study is an attempt to heed this warning. On this background, the method chosen is to look for forms and constructions that are either identical or similar to the progressive and nonprogressive aspect forms and try to find a unique interlanguage pattern in the learner groups. It is tempting to claim that my task can be summed up in the words of Römer: "I knew what I was looking *at* […] and to a certain extent what I was looking *for* […], but I did not know what I was going to find in the data" (2005: 4, italics in original). However, in some of the least proficient learners, it can even be hard to know what one is looking *at*, and this has implications both for what one is looking *for* and for what one may find. The present study started as an interest in the progressive aspect, but as the data revealed more *-ing* forms than actual progressive constructions, the form started taking precedence and the need to chart the development from form to construction arose. On the one hand, then, it was decided to keep an open mind and let the nature of the data guide their organization. On the other hand, numerous other studies have already given valuable insight into L2 learner development when it comes to the use of the progressive, not least as regards the co-occurrence with semantic categories, as seen in the Aspect Hypothesis studies (see section 3.4.2). It would be ill-advised not to draw on this existing knowledge in the search for patterns in the dataset, as it will certainly contribute to steering the search in the right direction.

These two somewhat contradictory concerns – to draw on existing theories and findings, and to keep an open mind to see what the data will yield – means that the research questions are based on two different sources: First, to allow for a data[5]-*based* analysis, questions and hypotheses are formulated to reflect the assumption that the results in the present study will be in line with previous theoretical and empirical accounts. Second, to allow for a data-*driven* analysis, the data are categorized and research questions asked to accommodate for the type of data that is found in this dataset; several of the questions then stem from observed phenomena in the dataset. In the latter case, theoretical preconceptions and conventional categories are only an aid in detecting patterns and categories, not an absolute yardstick. Finally, it should be mentioned that, although data-driven approaches should in principle be theory-neutral, Römer suggests that "certain existing linguistic theories lend themselves to the corpus-driven approach" and points to "usage-based theories in the framework of Cognitive Grammar" (2005: 298). Cognitive Linguistics may thus be a theoretical foundation that is suitable for combining the two approaches. Therefore, theories regarding the use and acquisition of tense-aspect morphology, particularly those that stem from the Cognitive Linguistic framework, are actively sought and used both as a starting point and methodological guidelines, but the extent to which they are seen as relevant is partly determined on the basis of what the data material actually yields. This is a back-and-forth process, where theory and data inform each other in order to lead to suitable queries. Ultimately, what is most important is the answers to the questions, not how the questions were arrived at in the first place or which theory they represent.

1.6 Research questions

With the aims of the study in mind, to chart the development of a learner language system with regard to the English progressive construction, the following research questions are taken as a point of departure:

1. *Frequency:* The first set of questions relate to the progressive's quantitative position in the verb system; given a finite number of verb phrases in each of the learner texts, what is the proportion of progressive tokens?
    a. To what extent do young Norwegian learners use the English progressive as compared to same-age native speakers?
    b. Are there differences in frequency that correlate with the extralinguistic factors **age, gender** and **proficiency level?**

[5] I reserve the term 'corpus' for larger data-sets.

c. How does the frequency of the progressive interact with the frequency of the temporal category TENSE in each of the learner groups?
d. How do the frequencies of the progressive in the present study compare to frequencies in native-speaker and L2-learner corpora reported in other studies?

2. *Semantics:* The second set of questions deals with the relation between the meaning of the lexical item and the choice of formal coding. Although primarily concerned with semantics, these comparisons also involve frequency counts.
    a. Is there a correlation between the use of the progressive and the semantics of the verb phrase, as predicted by the Aspect Hypothesis (cf. section 3.4.2)?
    b. Can the predictions of the Aspect Hypothesis be extended to the *-ing* form in other constructions than the progressive? In other words, do the predictions hold for the *-ing form* in itself or for the *function* of the progressive as the finite verb phrase in a clause?
    c. Are there more specific semantic traits than those represented by lexical aspect categories that can account for the distribution of the progressive in the present dataset? This question is open-ended and the analysis relies on what the data may reveal, rather than theories that have already been set forth (see section 1.5 above).
3. *The progressive construction:* The third set of questions deals with how the *-ing* form develops into the progressive and other constructions. The progressive and other constructions are compared quantitatively, and in addition, the distribution of *-ing* in other constructions is charted:
    a. How does the frequency of the *-ing* form in the finite progressive construction correlate with the frequency of *-ing* in non-finite and even non-verbal[6] constructions (i.e. nouns, adjectives, etc.) in each of the learner groups?
    b. In which other constructions is the *-ing* form found in each of the learner groups?
4. *L1 influence:* The last set of questions pertain to the larger theoretical issue of whether or not it is relevant to consider the learners' first language in explaining how a second language is learned.
    a. Is there anything in the material that indicates that Norwegian learners rely on linguistic patterns in their L1? Candidates for such patterns are both formal, as

[6] These terms are explained in section 4.8.2.

Norwegian has an *-ing* form, and functional, as there are non-obligatory ways to express progressive meaning in Norwegian.

b. If so, does L1 influence vary over time?

These questions are elaborated in section 3.5, based on the discussions in chapters 2 and 3. In addition, the present study takes a data-driven approach to part of the analysis, as explained in 1.5 above, and this means that it is an aim of this study to seek answers to questions that may arise during the analysis, as well as to the ones listed above.

1.7 Data and method

The method described in chapter 4 may be briefly outlined as follows: A small learner corpus has been built for the purpose of this study, consisting of written narratives based on Mayer's (1969) picture book "Frog where are you?", the so-called "Frog Stories" (Berman and Slobin 1987, 1994). This ensures that any differences among the learner groups do not stem from differences in genre or topic. To elicit these stories, a web page was constructed and all information was thus collected digitally and online; the informants in the study received their instructions both in written form through the web site and orally from their teachers and/or the present researcher.

From the collected texts, all verb forms – in both finite and non-finite contexts – were subsequently extracted, along with formally similar constructions. These were then listed in an Excel spread sheet, and individually coded for relevant information (e.g. informant number, L1, tense, person). A column with the verb form in context was also provided.

Chapter 5 gives a mixed methods analysis of the data: Where the numbers are large enough to be deemed representative, a purely quantitative analysis is used and tests are performed to reveal whether the results are statistically significant. However, as a complete study should also reveal something about some of the more problematic issues, part of the analysis is devoted to smaller categories: a qualitative analysis is here found more suitable and thus only relies on descriptive statistics. The qualitative analysis is also informed by quantified data, but seeks to describe trends on this basis, rather than provide statistical evidence.

1.8 Contributions to the body of research

While the present study deals with issues that have already been studied extensively, it approaches them in ways that, to my knowledge, have not been done before. First, another first language – Norwegian – is added to the body of work that has been done on the Aspect

Hypothesis (see section 3.4.2). In doing so, I provide further evidence of whether or not the learners' L1 is in any way a factor in the process of learning to use the progressive. Second, a comparison with native-speaker learner groups at the same age and – presumably – cognitive level as the Norwegian learners will show us to what extent the Norwegian informants use the progressive in a way that differs from what can be expected in narratives produced by native speakers at these stages of cognitive development.

In addition to insights about the specific learner groups studied in this project, the way the material is analyzed contributes new knowledge in several ways. Few studies of the learning of tense-aspect morphology have a large enough number of informants to perform valid statistical tests (for exceptions, see Housen 2002a, Gujord 2013). The present study uses rigid criteria for statistical testing and gives a multivariate regression analysis that tests correlations between the frequency of the progressive and several independent variables, in order to determine which factors have the greatest predictive value when it comes to the use of the progressive (see sections 4.10 and 5.4). This analysis considers the likelihood of *individual* learners to use the progressive and is thus different from the pooled results found in most other studies; the latter may obscure important information about variation within a learner group. Such thorough statistical analysis gives more substance to the results, not least when it comes to the semantic distribution predicted by the Aspect Hypothesis (see section 3.4.2).

Another way the present study differs from previous ones is in differentiating strictly between the progressive construction and other uses of one of its components, the *-ing* form. It is not always clear whether researchers distinguish between the two, as when Robison talks about "*-ing* marking" and "progressive marking" as if the two were synonymous, and gives examples of the "progressive" where the item in question is clearly another type of construction (1995: 357). Strictly speaking, *-ing* cannot be considered a progressive unless it is preceded by a form of the auxiliary BE, but such a rigid analysis would exclude learners' first attempts at using the construction. Instead, the approach taken here is to classify *-ing* as progressive when it is found in contexts where a finite verb phrase is required, regardless of whether the auxiliary is used. Thus, a distinction is made between the progressive and progressive-like use on the one hand, and *-ing* in other contexts on the other hand. This classification allows us to examine the extent to which learners establish the progressive as a complex construction, in contrast to the *-ing* form in other uses, and how this development is seen across age and proficiency groups. One other benefit of such an approach is that it is possible to distinguish between the influence lexical aspect has on the *-ing* form and on the progressive construction as a unit; if there are differences, they will attest to the need to distinguish between learners' perceptions of the bare

form and the construction. Conversely, if the distribution of lexical aspect is similar in all contexts, this should be seen as evidence that usage is associated with the *-ing* form alone.

Finally, the present project subscribes to the Cognitive Linguistic view that categories are not discrete units, but rather form a continuum from prototypical members of one category, via peripheral category members, to prototypical members of another category. In light of this view, the broad semantic categories that form the basis of the Aspect Hypothesis are abandoned in section 5.9, in favour of a fine-grained analysis which considers the semantic traits that characterize individual verbs that are frequently used in the progressive in the learner groups in this study. This qualitative analysis is performed in order to find out whether traits that are frequently said to be compatible with the progressive – such as atelicity, imperfectivity, easily observable actions, etc. – are in fact important for the learners' use of the construction. As the analysis is explorative in nature, it will also consider features that may not have been previously emphasized in the literature (see section 1.5 above).

1.9 Structure

After this brief introduction of the study, the thesis gives a chapter on language acquisition in general, which among other things explains the rationale for choosing the learner groups/variables in this study and what they may tell us. Next, chapter 3 is devoted to a theoretical account of the linguistic categories relevant for a study of the progressive – including corresponding categories in the L1 in this specific study, Norwegian – as well as theories regarding the acquisition of this construction. The methods used both in collecting and analyzing the data are presented in chapter 4, whereas the bulk of the analysis is given in chapter 5, followed by a summary and discussion of the results in chapter 6. Finally, chapter 7 sums up the findings and suggests implications they may have both for further research and, not least, for teaching the progressive construction in Norwegian classrooms.

2 THEORETICAL FOUNDATIONS

This chapter is a discussion of some of the theoretical issues pertaining to this study. One important question that will be dealt with is whether second language development, in this work represented by the English progressive, is basically different from or similar to that of first language learners. For this purpose, the present study compares groups of learners with English as their L1 and L2 respectively. Assuming that the two learner groups have some things in common, section 2.1 presents theories that are relevant to language learning in general, many of which stem from research on first language acquisition. The basic view is that language learning skills are part of people's general cognitive capacity, as theorized in the framework of Cognitive Linguistics[7], and that both first and second language learning in some measure rely on these skills.

Section 2.2 takes a closer look at issues specifically related to second language acquisition. Second language learners are much more heterogeneous than first language learners – though the latter are by no means free of diversity – and all this calls for some methodological considerations. Issues that are discussed are definitions of learner groups, both in general and for the purposes of this study; some differences between L1 and L2 learning; the difference between second and foreign language learning; and the relevance of age and cognitive maturity. All this is to situate the learners in this study, relative to other research on L2 acquisition, and are things that must be borne in mind if the results from this investigation are to be compared with previous research. The matter of age is particularly interesting, as it is said to be a major factor in L2 acquisition, and the learners in this study are well within the age range that is hypothesized to be under the so-called critical age, but the question is whether age effects are the same in second and foreign language learners.

The remainder of section 2.2 is devoted to a discussion of learner language and to what extent L2 learner usage is influenced by the L1, as well as whether this can be detected and if so, how. L1 influence is a complex matter and may take on any number of forms. This makes it difficult to ignore, but all the more challenging to distinguish; yet, in a study that compares L1 and L2 usage, the possibility that it is a contributing factor must be entertained. The

[7] The presentation of relevant insights from Cognitive Linguistic theory draws on the works of e.g. Langacker (1987, 1999, 2008b), Croft and Cruse (2004), and Radden and Dirven (2007).

discussion in this chapter is of a general nature; we shall return to this issue and its relevance to the English progressive in chapter 3.

Section 2.3 is devoted to a specific theory of language learning and use; Slobin's (1996) *thinking for speaking*, a modified and dynamic approach to Whorf's (1956) infamous *linguistic relativity*. This approach is relevant for the present purposes, as it emphasizes the conceptualizations that are necessary in order to acquire language, and how these conceptualizations must sometimes be restructured in order to understand and successfully use linguistic items in an L2. Finally, section 2.4 sums up the theories presented in this chapter.

2.1 Language acquisition

Language acquisition is a vast field indeed. It covers both first, second and subsequent languages; bi- and multilingualism; oral, written and signed language; and language learned in different contexts, at different ages and to various extents. The study of language acquisition can also be approached from many different angles: one may study learner comprehension, production, development or motivation; learning techniques; group behaviour or individual factors; specific languages or universal traits – just to name a few things. Naturally, it is beyond the scope of any study to cover the whole range of possibilities, but it will always be useful to be aware of the multitude of factors that contribute to the process of learning language, be it a foreign language or the mother tongue. This section will give a discussion of some of these factors, insofar as they may be considered relevant to the present study.

2.1.1 First language acquisition

Although language is such an integral part of what it means to be human, none of us remembers how we actually learned our first language or what it was like not to have a language. The reasons for this are not entirely clear, but it is not unlikely that some understanding of language is required to be able to store knowledge about various aspects of life, such as the learning process itself. Whatever the case may be, it is evident that to gain information about the early stages of first language learning, it is difficult to ask the learners themselves. In fact, until fairly recently, it was not commonly considered relevant to study the learners at all (Gopnik, Meltzoff, and Kuhl 1999: 112). Today, though it is still not possible to ask infants direct questions about their learning process, researchers are finding out more and more by observing the verbal and nonverbal behaviour of very young children.

There are at least two diverging views on how language is acquired. The view that has been prevalent since the early 1960s, after Chomsky (1959) launched his famous attack on

Skinner's behaviourism, is the one that holds that language is an innate system and that our brains contain a separate language module which differs from general cognition. This theory, also referred to as generative grammar, further posits that syntax is an autonomous system which can be teased apart from the equally separate systems of semantics and pragmatics. The generativist claim (see e.g. R. Ellis 1997) has been that the human capacity to learn language is due to what is termed the Language Acquisition Device (LAD), which gives a child access to a Universal Grammar (UG) once it is exposed to input in the form of the native language it is in the process of learning. Thus, the parameters of UG are set to accommodate for the specifics of a given language. This theory further posits that after a so-called "critical period"[8], LAD can no longer (or at least only partly) be accessed, and languages learned after this stage must be acquired through other means, as the parameters of UG are set once and for all. Thus first and (post-puberty) second language learning must be seen as related, yet fundamentally different, processes. Such a theory quite elegantly explains why few people are able to achieve a native-like command of a second language and, as so many have observed, why this feat becomes increasingly difficult the older the learner is. However, a universalist view of language acquisition fails to explain why there are so many exceptions to this rule. Studies have shown that learners have managed to reach a native-like level of proficiency even when their learning started well into adulthood, although this does not apply to the majority of language students (see e.g. White and Genesee 1996, Abrahamsson and Hyltenstam 2008). One might argue that these select few learners have somehow managed to keep their access to LAD open well beyond the critical period, but this kind of exception does not seem very plausible if such a device is biologically determined.

Over the recent decades, the generativist framework has been severely criticized by proponents of various competing theories, many of which can be grouped together under the label Cognitive Linguistics. According to these theories, language may not be divided into separate modules, but must rather be seen as an integrated whole where every aspect of language can be explained by a set of general principles. Perhaps most important of these principles is the notion of language as a set of symbolic structures, each with a semantic and a phonological pole (e.g. Langacker 1987, 2008b). This means that it is not possible to see syntax and semantics as separate systems, which further calls for a revision of the relationship between thought and language.

[8] Proponents of the theory have yet to agree on the exact age of the "critical period", but it seems that it is commonly believed to coincide with puberty (see e.g. Gass and Selinker (2008: 406)).

2.1.2 Cognitive prerequisites

As already suggested, the best way to start exploring the mechanisms of language acquisition is by observing and/or testing the behaviour of children in their earliest stages of learning. Such observations have allowed researchers to draw conclusions regarding the use of simple utterances and the children's general cognitive development. Tomasello (2003a: 3-4) discusses the importance of cognitive and social-cognitive skills as a prerequisite for language learning, and identifies "two sets of such skills that are of particular importance for language acquisition". These are skills of *intention-reading* and skills of *pattern-finding*. The latter set may be defined as the ability to make various kinds of categorizations. These include, among other things, categories of "similar" objects and events; sensory-motor schemata abstracted "from recurrent patterns of perception and action"; and "the ability to create analogies… across two or more complex wholes…" (ibid.). Children use these pattern-finding skills to find patterns in the speech of adults and thus extract intelligible segments from the flow of speech. However, without the other set of skills, they would not be able to make use of the categories they extract. It is not enough to be able to *find* patterns; one must also know *how they are used*, and this is where the intention-reading skills play their part. At around 9-12 months, infants start displaying the ability to share attention with other people to objects and events. Not only that, they are also able to understand that other people want to share their attention to things and they start exploring ways "to actively direct the attention of others to distal objects by pointing, showing, and using of other non-linguistic gestures" (ibid). Not least, they learn how to imitate the intentional actions of others, which is crucial for learning language and other means of communication. Intention-reading skills enable children to understand when an adult is trying to direct his/her attention to something and, more importantly, that this is what the adult is trying to do and that the linguist unit used (perhaps with accompanying gestures) is *symbolic* of this intention. Tomasello describes this as a *triadic* relationship, where attention is directed not only at the object described and the linguistic symbol that describes it, but also at the intention to share this attention. As Tomasello puts it, "sounds become language for young children when and only when they understand that the adult is making that sound with the intention that they attend to something" (Tomasello 2003a: 23). All of this takes place within the *joint attentional frame*, which may be defined as the set of objects, actions and relations that are relevant to communication in any given context. To a child, this may be the toys she is playing with, but not the furniture in the room, which may be relevant in a different context.

Finally, Tomasello discusses the importance of *role reversal imitation*, a process by which infants advance from simply mimicking the behaviour of others to imitating their

intentions towards outside entities. This is more complex than it may immediately appear; not only must the child copy the adult's action, she must also imagine herself in the adult's situation. The implication for language is that when the child learns to use a linguistic symbol, she cannot simply use it, as the adult has demonstrated it, directed at the child herself, but she must reverse the situation and direct it at others. She has then gained the insight that

> she has acquired a symbol that is socially "shared" in the sense that she can assume in most circumstances that the listener both comprehends and can produce that same symbol – and the listener also knows that they can both comprehend and produce the symbol.
>
> (Tomasello 2003a: 28)

This is in stark contrast to a non-symbolic form of communication "in which each participant understands its own role as sender or receiver only, from its own inside perspective" (ibid.).

2.1.3 The child as a scientist

Another proposal that is congruent with the idea that our ability to learn language is part of our general cognitive faculty, is what Gopnik (2001: 3-4) terms the "theory theory". In her work, she rejects several of the principal tenets of Piagetian theory, but suggests an alternative way of interpreting the insights the Swiss psychologist reached. Unlike Piaget, who pioneered the field of child development, she does not see the changes that infants go through as domain-general stage changes, but rather as domain-specific changes. She argues that even very young infants go through deep and fundamental theory formation processes, and that some theories may even be innate. The central point of this theory is that children's cognitive processes are analogous to those of a scientist: Theories are constantly formed, tested and revised. Some end up being rejected, others are refined and further elaborated. This line of thinking applies to children's understanding of all areas of life, but for the present purposes the discussion will naturally be limited to the relationship between cognition and language.

Theory formation is important to the developing child in several ways. Significantly, theories allow us to structure our impression of the world around us, much in the same way as language, one might add. Entities may be grouped into categories based on physical or functional properties, and physical evidence may lead to inferences about cause and effect. Once a theory has been formed, it can be used to make predictions about new events or whether an entity may be included in a category, based on certain properties. According to the "theory theory", these processes not only *structure* physical evidence but provide *explanations* for the same evidence based on more or less well-founded interpretations. In other words, theories

provide the child with a means to interpret the physical world as well as abstract ideas. "Perhaps most importantly and distinctively of all," Gopnik stresses,

> …theories change. These changes are caused by external evidence, particularly, though not exclusively, counter-evidence to the theory. Often the initial reaction to evidence is simply a kind of denial – the theorizer ignores the counter-evidence. Eventually, however, enough counter-evidence accumulates to force revisions, and, eventually, even more radical changes in the theory. Simple falsification, however, is often not itself enough to generate theory change. An alternative theory must be available.
>
> (2001: 47)

In her own work, Gopnik has tested some of the changes that infants go through during the period between about fifteen to twenty-one months in their understanding of several basic domains. The idea is to detect a relation between their problem-solving skills in these areas and the emergence of language. An important finding is that abilities that, on average, emerge around the same age are not necessarily correlated. In a series of longitudinal studies, the children were given a variety of non-linguistic tasks that tested their performance in several non-related domains. Their language development over the same period of time was also recorded by means of both video recordings and a maternal questionnaire. The children were tested for the understanding of object permanence, and shortly after reaching "highest-level object search behaviors" (2001: 52), mothers reported the use of words like *allgone*[9]. The next relation was found "between words encoding success and failure, such as *there* and *uh-oh*, and the development of means-ends abilities, in particular the ability to solve certain problems with "insight," immediately and without a period of trial and error" (2001: 53). These behaviours were also soon followed by the child's production of such words. Third, another independent relation was found between the ability to classify and categorize objects, and the naming spurt that typically occurs at this age.

It is important to emphasize the independence of these three domains and the related linguistic development; children are not more likely to produce words "belonging" to the other domains when they have mastered one of them, but the domain-specific words are very likely to appear once the relevant domain has been sufficiently explored. The conclusion to be drawn from these studies is that conceptual and semantic developments appear to be linked in very specific ways. As regards the relation between language and cognition, it would seem that the one is not simply a prerequisite for the other, but rather that the two work together to facilitate the acquisition of both a concept and the related word or expression. As Gopnik puts it, "children choose to encode the concepts that are at the frontiers of their cognitive development,

[9] At this stage, it is fair to assume that children analyze this and similar utterances as a single-word unit.

the concepts that are central to the theories that are currently under construction" (2001: 55). She further explains how linguistic input seems to be an important factor in theory formation, and perhaps more so as linguistic knowledge is developed and refined. Linguistic similarities have been found to draw children's attention to other (real or assumed) similarities between objects. In this respect, Gopnik modifies her scientist analogy to suggest that a child is more like a science *student*, who is simultaneously presented with scientific problems and the terms that go with them. Any language is an elaborate system of categorizations and different perspectives, which may be likened to a set of theories about the ways of the world that is passed on from generation to generation and kept alive in the community that speaks it. And just as adults make it easier for children to learn things by showing them how they are done, language may function as "an important medium for passing on alternative theoretical models to children. Adults may not only pass on the relevant evidence to children, they may also provide the child with alternative theoretical models more directly, by representing them syntactically" (2001: 61). As with Tomasello's intention-reading skills, we see that interaction with other language users is a necessary factor in language learning.

2.1.4 Cognitive and linguistic factors

The theories outlined above provide good explanations for the general cognitive basis for language learning, but a closer scrutiny of some factors that contribute to the acquisition of specific linguistic features will be equally fruitful.

Central to all cognitive linguistic theories of language learning, as well as usage, is the notion of *schematization*, defined by Langacker as "the process of extracting the commonality inherent in multiple experiences to arrive at a conception representing a higher level of abstraction" (2008b: 17). Cognitive Linguistics (CL) is a *usage-based* theory of language, a term that may be interpreted in (at least) two ways. First, it is a reminder that knowledge about language on a structured, scientific level must be derived from observations of real language use, as opposed to mere introspection and the analysis of construed, decontextualized examples. It is thus an empirically based theory of language. More importantly, however, CL relies on the assumption that "knowledge of language emerges from language use" (Croft and Cruse 2004: 3) and our knowledge of structures is "built up from our cognition of specific utterances on specific occasions of use" (ibid.:4). Following the "theory theory", however, these two interpretations are closely linked: just as children develop their knowledge of language by using it and form theories based on trial and error, so must the linguist form theories of language by examining the way it is used. The difference lies in the fact that the linguist already has formed

theories implicitly through previous learning[10], which must now be made explicit (and very likely revised), whereas the child is still in the process of forming theories that in most cases will remain implicit. However, both the language learner and the linguist must derive their knowledge of language from examining actual language use.

Whether a child or a linguist, the theorizer must gather evidence from the same unit produced on a number of occasions until she can see a pattern that will form the basis for a theory. Such units may range from individual sounds, e.g. [s], to full sentences, e.g. *There's the ball.* Each production of these units is referred to as an *instance*, whereas the abstraction over a number of instances is called a *schema*. Initially, each instance will be inextricably related to the *usage event*, the specific context of an utterance, but with each new instance a general pattern will emerge, which in turn will lead to hypotheses about possible new contexts where the same type of utterance may be used.

Schemata may have several levels of abstraction. The example above, *There's the ball*, may be seen as a schema abstracted from several contexts where these words have been uttered in union, but it may also be seen as an instance of the more general construction *There's the X*, where the *X* may be substituted for any given physical object. Gradually, the child learns to make these generalizations and categorizations, and comes to understand how they may be applied to produce complex utterances. Evidence from early child language seems to demonstrate part of the schema-building process. Tomasello (2003a: 36-40) describes children's first, one-word utterances as "'holophrases' that convey a holistic, undifferentiated communicative intention, most often the same communicative intention as that of the adult expressions from which they were learned". Gradually the child learns to abstract the linguistic symbol from the concrete context and in the process its reference may change considerably: the usage may become more specific or more generic, or the reference may be to an action or an object, to name a few possibilities. Tomasello cites some of the first words his daughter used, for instance *towel*, which was first used as a reference to the whole situation of cleaning up with a towel, then to the towel only.

As the linguistic development goes beyond the one-word stage, *constructions* gain in importance and complexity. Taylor defines a construction as "[a]ny linguistic structure, whether phonological, semantic, or symbolic, that can be analysed into component parts" (2002: 589). Constructions may thus be found at any level of complexity and schematicity. In CL accounts,

[10] This explains quite well why introspective methods may be used with some degree of success.

language learning is most often taken to be a bottom-up process, whereby several instances form the basis of a schema, cf. the above discussion. However, Goldberg argues that

> an entirely lexically-based, or bottom-up, approach fails to account for the full range of English data. Particular semantic structures together with their associated formal expression must be recognized as constructions independent of the lexical items which instantiate them.
>
> (1995: 1)

Although the bottom-up explanation seems to hold true to a great extent, construction schemata may also facilitate the acquisition of individual lexical items. A syntactic construction is taken to be a symbolic structure in itself, with a distinct semantic meaning that is not predictable from the individual components it is made up of. Goldberg offers the following definition of a distinct construction:

> C is a CONSTRUCTION iff$_{def}$ C is a form-meaning pair <F_i, S_i> such that some aspect of F, or some aspect of S, is not strictly predictable from C's component parts or from other previously established constructions.
>
> (1995: 4)

In her view, constructions are the basic units of language, and she takes as her working hypothesis the Principle of No Synonymy of Grammatical Forms, derived from Bolingers conclusion that "[a] difference in syntactic form always spells a difference in meaning" (1968: 127, cited in Goldberg 1995: 3). In other words, different constructions may not be analyzed as the same semantic meaning presented in different syntactic forms, as in the much-used example of the English active versus passive construction. Tomasello (2003a) seems to agree with the basic line of argument, but cautiously restricts strong claims in this respect to verb learning as the meaning of a verb depends on its valence; nominal constructions seem to be more independent. He finds "that the linguistic contexts that help children to learn verb meanings may be working solely on the semantic level, in this sense that the child is determining the meaning of the utterance as a whole and then partitioning out those parts due to particular lexical items" (2003a: 77). He further argues that age is an important factor, as children have learned syntax well enough to use it to learn new words by the age of 3 to 4, something that 2-year-olds generally are unable to do. This means that it takes quite some time "to create the abstractions that they will later use to make top-down inferences about specific word meanings" (ibid.). We see that bottom-up and top-down processes support each other in a back-and-forth manner.

Another important factor in CL theories of language acquisition is the role of *frequency*. In Langacker's (1987) line of thinking, the frequency of a linguistic utterance is what leads to its *entrenchment*; each use leaves a small imprint in the mind, which gradually makes it easier to retrieve without conscious effort until at some point it becomes a *symbolic unit*, with a semantic and a phonological pole. In this way, access to these units is automatized and the speaker can pay attention to the content rather than the linguistic expression. However, Langacker stresses that units are variably entrenched and it is impossible to measure exactly at what point a structure reaches unit status. Frequency effects are important to explain how children make abstractions to form schemata; utterances that occur often are more likely to be perceived as forming a pattern whereas less frequent utterances may initially be seen as isolated occurrences. This seemingly straightforward cause-and-effect relationship is challenged by Nick Ellis (2002), who, without dismissing the cases where it in fact *is* as simple as that, demonstrates the complexity of frequency effects. As he puts it, "[t]he multiplicity of interacting elements in any system that nontrivially represents language makes the prediction of the patterns that will eventually merge as difficult as forecasting the weather, the evolution of an ecological system, or the outcome of any other complex system" (2002: 178). Frequency effects may be readily identified, but certainly not easily predicted (cf. the discussion of the Contrastive Analysis Hypothesis, section 2.2.7.1). Ellis describes how both children and young adults have been found to be able to estimate remarkably well the relative frequencies of words, letters, and pairs of letters. While our conscious mental efforts may be dedicated to communicating ideas, part of the unconscious seems to count the occurrences of each linguistic item, though naturally not in the sense that access to unconscious mental activity would yield an actual number of instances of each item; rather, each instance is stored mentally and used collectively as a basis to form frequency judgments. Moreover, each instance of a linguistic item reduces the processing time so that every additional instance will be processed more easily.

Frequency effects are found on all levels of categorization, from the phoneme to complex syntactic structures, such as the transitive versus the intransitive. However, another distinction seems to be equally important, namely that of type versus token frequencies. Ellis defines type frequency as "how many different lexical items can be applied to a certain pattern, paradigm, or construction" (2002: 166), and gives the example of the English past tense marker *-ed*, which has a very high type frequency, as opposed to the vowel in *swam* and *rang*, which has a lower type frequency, although *swim* and *ring* are much more frequent verbs than, say, *demand*, which takes the regular past tense marker. Ellis sees type frequency as a determining factor in language production and lists the following reasons:

> (a) the more lexical items that are heard in a certain position in a construction, the less likely it is that the construction is associated with a particular lexical item and the more likely it is that a general category is formed over the items that occur in that position; (b) the more items the category must cover, the more general are its criterial features and the more likely it is to extend to new items; and (c) high type frequency ensures that a construction is used frequently, thus strengthening its representational schema and making it more accessible for further use with new items (Bybee & Thompson, 2000).
>
> (2002: 166)

Frequency also provides an explanation for formulaic language in that items that have been observed together a number of times come to be seen as lexical chunks. Each instance of a collocation cements the formula so that it is accessed as a whole rather than as individual parts. As with Langacker's notion of entrenchment, this may happen to a greater or lesser degree. Stefan Gries and Anatol Stefanowitsch have explored this in their method called "collostructional analysis" (e.g. Gries and Stefanowitsch 2004a, 2004b, Stefanowitsch and Gries 2003, 2005).

Frequency, then, seems to play a large part in language acquisition in several different ways:

1) To aid in identifying linguistic patterns at every level of abstraction. ""[R]ules" of language[…], are structural regularities that emerge from learners' lifetime analysis of the distributional characteristics of the language input" (Ellis 2002: 144). In other words, learners do not try to *find* already-existing rules; they *make* their own rules based on available evidence. This resonates well with Gopnik's theory and may explain why learners are so reluctant to stop producing e.g. past tense inflection errors. The most frequent form is the first to stand out as a clear pattern and the irregular verbs are first modelled after this. As we have seen (section 2.1.3), an important postulate of Gopnik's is that it is not enough that a theory is falsified; it must also be replaced by a new one. In the case of the past tense, enough evidence of irregular forms must be found for a new (sub)theory of past tense inflection to be formed.

2) To reduce processing time; frequent patterns are more easily entrenched and more quickly accessed.

3) To give learners a basis for assessing which linguistic items are most likely to occur in any given context, be it bigrams or collocations. Part of language learning is thus an implicit probability analysis based on relative frequencies.

To sum up: CL theories of language acquisition hold that each learner constructs an idiosyncratic (yet compatible) version of a given language by analyzing physical evidence in a

number of contexts, by using pattern-finding and intention-reading skills to notice patterns and abstract schemata, by forming and revising theories, and not least, by *using* language. It is *not* a matter of discovering and adapting already existing, biologically determined, universal rules. In this view, language learning is a *dynamic* process whereby linguistic conventions are constantly *negotiated* and the learning process may at some point slow down, but it is likely that it never ends completely, as it will be argued below.

2.2 Second language acquisition (SLA)

"Wer fremde Sprachen nicht kennt, weiß nichts von seiner eigenen."[11]

- Johann Wolfgang von Goethe

Whether first and second language acquisition are similar or different processes, or whether they are strongly or weakly related, remains a point of dispute and has yet to be established. Still, the evidence in favour of similarities between L1 and L2 learning is quite compelling. It will be argued here that the literature suggests that second language acquisition may rely on the same basic principles as first language acquisition, but that the many differences in circumstances lead these principles to be applied in different ways. An investigation of L1 Norwegian learner narratives will then reveal whether this is evident from these learners use of the English progressive.

This section seeks to situate the learner groups in this study and outline the differences and similarities between learning a language as an L1 or an L2. As seen in section 1.3, the position of English in Norway is such that Norwegian learners of this language fall somewhere between the categories first, second and foreign language learners; these terms therefore merit some debate. Sections 2.2.1-2.2.3 are devoted to a discussion of what it is to be a language learner; the difference between L1 and L2 learners and their learning processes; and the distinction between second and foreign language learning. Since the L2 learners in this study were introduced to formal instruction at a very early age, the complex issues of age and exposure are problematized in section 2.2.4, followed by a discussion of *interlanguage* – the idiosyncratic language of learners produced at various stages of learning – in section 2.2.5. The latter is an important issue, as the present study aims to identify such stages of the learning process. Finally, section 2.2.7 looks at the issue raised in section 1.2, of whether or not it is relevant to consider influence from the first language in examining the acquisition of linguistic items in the L2.

[11] "He who knows no foreign languages knows nothing about his own."

2.2.1 How to define a learner

In most of the literature on second language acquisition, it seems to be taken for granted that everyone knows what it means to be a language learner. Within the framework of generative linguistics this is not very surprising: Given that first language acquisition is biologically determined and second language acquisition is not, someone who has accessed the Universal Grammar through his/her first language and successfully acquired the constituent syntactic structures of this language is considered a native speaker. Someone who endeavours to learn a second (or subsequent) language(s), on the other hand, will seemingly forever merit the label "learner", whatever the degree of success. This holds true even at very advanced stages of learning, as evidenced by the term "near-native speaker"[12] (e.g. White and Genesee 1996).

The views adopted in the present work would pose a challenge to such a straightforward reasoning. A strict learner/non-learner dichotomy implies that it is possible to identify a point where a person stops being a learner, when a language *is acquired*. As we have seen, however, CL theories of language acquisition emphasize the dynamicity of language. Language is constantly negotiated (Langacker 1987) and linguistic conventions change, even in adult native-speaker language communities. When a novel linguistic unit is used with enough frequency, it becomes part of the common linguistic inventory. For instance, who knew what "Twitter" or "Google" was only a few years ago? Similarly, an already conventionalized expression may gain a new meaning or usage. A well-known example of this is the adjective *gay*, which formerly meant "happy, merry" but has now quite unambiguously taken on the meaning of "homosexual". People adapt to these changes with remarkable ease (though in some cases with conscious resistance and considerable dispute).

This dynamicity may be seen as evidence that language learning is a life-long process, where individual language users adapt to changes in the conventions of their language community. Obviously, the most rapid, intensive learning takes place in the initial stages of first-language learning, but even the first language is constantly developed and refined. The language of an eight-year-old may be considerably different from that of a 50-year-old professor, who in turn may have an entirely different turn of phrase than a 30-year-old business man or a 25-year-old fifth grade teacher. In addition, all these people most likely use different registers depending on both context and interlocutors. Even within a very specific genre –

[12] For a critical discussion of the terms *native speaker* and *near-native speaker*, see Valdes (1998).

written academic text – it has been demonstrated that the use of the English progressive is significantly different in a comparison of native-speaker college students and expert writers[13].

Clearly, very advanced adult L2 speakers may have a greater command of academic language, or other type of jargon – even language in general – than native-speaker children or adolescents. Still, the former group is more often considered learners than the latter, in spite of the fact that these adults have reached a much higher level in both their linguistic and general cognitive development. Thus, the stance taken by the present author is that a strict learner/non-learner dichotomy must be rejected and be replaced by a continuum between the two categories. However, it should be fairly evident that "learner" is a valid term; people do learn languages, both first and second, and the learning process is usually quite long. Instead, then, the view adopted here is that learning is such a gradual process that it is not possible to identify a clear-cut point where one is no longer a learner but a "speaker". Learners may be found at all stages of learning, and therefore I will argue that the native-speaker groups in the present work may readily be referred to as L1 learners. Consequently, development across age groups will be expected in L1 as well as L2 learners.

Nonetheless, the L1 and L2 groups must be distinguished somehow, not least since the former constitute a point of reference for the latter[14]. Why is it acceptable to label them native speakers, while others must be excluded from these groups? Defining a native speaker is no easy task. Intuitively, one would say that a native speaker of a given language is someone who is born into the community where the language is spoken and learns it as his/her first language. However, such a definition relies on the assumption that a series of underlying premises are clearly defined, when there are in fact a host of unresolved questions as regards language and language users: How do we define a language? How do we define a speech community? How do we distinguish a language from a dialect? Should we rely on political, geographical or linguistic criteria? These are a few of the difficult issues on a global scale. Then there is the matter of individual speaker backgrounds: Must a native speaker be monolingual? Can a person be considered a native speaker if s/he learns the language outside the speech community (e.g. parents are stationed abroad)? Are you still considered a native speaker if you move to a different language area at an early age and stop using your first language on a regular basis? And perhaps the emotionally most controversial of all, if a child is removed from its first language community after a fair amount of language has been learned, adopted into a new

[13] Sylviane Granger: oral presentation at the seminar *Source Language Influence: Common Theoretical and Methodological Challenges in Second Language Acquisition and Translation Studies*; Bergen, November 2009.
[14] But see Muñoz and Singleton (2011) for a discussion of the validity of this criterion.

language community and forgets her L1, is she then denied the right to call herself a native speaker of any language? It is beyond the scope of the present work to even attempt to answer these questions (but see Gass and Selinker (2008), chapter 2 for a discussion of the many ways knowledge of more than one language can be manifest); suffice it to say that one must be aware of the issue and proceed cautiously. In selecting informants for this project, a very strict definition of a native speaker has been adopted so as not to risk influence from other languages as a complicating factor (we shall return to this in section 4.4). Only monolingual speakers of English with no foreign language family background are represented in the L1 groups, and included in the L2 groups are only informants with a corresponding Norwegian background whose knowledge of English solely stems from public education and media. Such strict criteria are perhaps somewhat artificial in an increasingly multicultural and multilingual world[15] and these measures are taken merely as a precaution against unforeseen factors influencing the results of this investigation. Thus, the informants in this project may be said to be *prototypical* learners and native speakers, but they do not reflect the diversity of language users in either society. On the other hand, they are not necessarily what Chomsky (1965: 3) refers to as an "ideal speaker-listener, in a completely homogenous speech community", either. For who is the "ideal native speaker", if such a thing even exists? As we have already seen, native speakers come in all sorts and shapes. They have so many levels of mastering their language and a poorly performing native speaker is still a native speaker – though perhaps not always the sort of speaker a learner aspires to be.

2.2.2 First vs. second language learning

As we have already seen in section 2.1, it is very likely that linguistic and cognitive development go hand in hand, as far as languages learned from earliest childhood are concerned. Languages learned beyond this stage are a different matter, however. There are many differences between first and second language acquisition, but possibly the two most obvious ones are age and time lag. These two factors are obviously connected; the older a person is when learning a second language, the more time will have elapsed since the first language was acquired, or rather, since the onset of L1 acquisition. With time and age, both language and general cognitive abilities develop; more and more knowledge of the world is gained and the first language is gradually refined and entrenched. This may contribute to both facilitate and impede L2 learning. It is, however, as difficult to generalize over the influence of age and

[15]Muñoz (2008: 580) makes a case for comparing second language learners with bilinguals (from birth) rather than monolingual native speakers; see also the introduction to Pavlenko (2011b), and Ortega (2009: 26-27).

cognitive development on L2 learning as it is to define a learner or a native speaker. The acquisition of a second language can start at any point in life (and at what point is it clearly a second language and not a second first language?) and take on any degree of intensity. It is hard to compare a four-year-old who moves to a new country and learns a second language during play and an adult who learns a foreign language in college, just to take a few examples from a wide range of possibilities. The below discussion does not offer any solutions, but rather seeks to point to some of the challenges connected to the study of SLA, especially when it comes to comparing results from various studies.

2.2.3 Second or foreign language?

One issue to clarify is whether second language acquisition (SLA) and foreign language acquisition (FLA) should be seen as two sides of the same coin or as distinct subject matters. SLA may be briefly described as learning a new language in the community where it is spoken (usually by immigrants), whereas FLA is instructed language learning (usually in a classroom setting). It is not unusual to treat the two as one; Jarvis and Pavlenko, for instance, take a strictly chronological perspective, where the L1 is the speaker's first language, regardless of current use and "[t]he term *second language* (L2) will refer to any language acquired subsequently, regardless of the context of acquisition or attained level of proficiency" (2008: 4). While this definition will be adopted in the present work, it is important to bear in mind that naturalistic versus instructed learning may have significant effects on L2 development. That is not to say that a clear-cut line can be drawn between second and foreign language learners: foreign language learners may have extended stays in a target language environment and second language learners may receive formal instruction and socialize minimally with native speakers. Lightbown and Spada (1997: 109-114) distinguish between natural and instructional settings and give a nice outline of typical characteristics of various learning situations. One important difference is that naturalistic learners need to learn language to fulfil their communicative goals, while instructed learning is more focused on the language itself. Even in what Lightbown and Spada call "communicative instructional settings", a homogenous L1 group will not need the L2 to communicate outside the artificial learning situation.

According to Jarvis and Pavlenko (2008: 206-7), both naturalistic and instructed learning can lead to learning effects, but the latter relies on more explicit linguistic knowledge than the former. Simensen (1995) discusses the value of *consciousness raising* as a means to draw on students' knowledge of their L1 in learning an L2, as they can relate and contrast L1 patterns with L2 ones. It may be the case that such explicit knowledge and metalinguistic

awareness promotes greater accuracy, if not fluency (cf. also Krashen's (1982) Monitor Model, which, put simply, proposes that the learner can use knowledge about a language system to make sure an utterance is error free before the time of utterance, though this will inhibit spontaneous speech).

Gass and Selinker distinguish clearly between second and foreign language learning, and see "access to speakers of the language being learned" (2008: 7) as the most important difference; foreign language learners generally learn the new language in a setting where all the learners have the same L1. This distinction aside, they agree with Jarvis and Pavlenko that "SLA refers to the learning of nonnative language *after* the learning of the native language" (ibid., author's italics). They do, however, offer a very interesting discussion of SLA and related disciplines (Gass and Selinker 2008: 20-30), which demonstrates both the variety of approaches to multilingual acquisition and the difficulty of finding good and valid definitions. They present, for example, a list of no less than 37 terms for and definitions of bilingualism, ranging from any command or understanding of a foreign language whatsoever (minimal bilingual) to complete and equilibrious command of two languages (balanced bilingual/ambilingual etc.). Thus, both SLA and FLA will fall under some definitions of bilingualism, as will all stages, ages and backgrounds of the bilingual speaker. Another area of research is *heritage language acquisition*, a term used to denote learners of "a language of personal connection" (ibid.: 23); the term does not take into account any of the particulars of the learning situation or the level of proficiency attained. Learners from a bilingual home will fall into this category, whether they are active or passive users of the language in question and no matter how well they master it. All this is to show that there are a great many categories of non-monolingual language users and these categories are by no means clear-cut. They are also represented in a great variety of studies, which are therefore to some extent difficult to compare.

Norwegians who learn English in Norway will by most definitions be classified as foreign language learners. Yet their situation differs greatly from, say Chinese learners of English as a foreign language, who have much less access to English outside the classroom. In some ways, describing Norwegians as second language learners of English might be justified (see section 1.3). All Norwegian schools teach English from the first grade and the children generally have little or no knowledge of the language at the start of their schooling. They also (mainly) have a common L1 and therefore fit Gass and Selinker's above description of FLA. On the other hand, English is widely used in Norway and children are likely to receive input regularly through various media. This will mainly be passive learning from sources of entertainment (film, TV, Internet), but they also have the opportunity to actively interact with

others through social media, as English is currently the world's leading *lingua franca*. For the same reason, communication with foreigners in Norway or abroad also relies heavily on English. In addition, English enjoys high status in Norway (as in many other countries) and this contributes to the learners' motivation (see e.g. Lightbown and Spada 2006: 63). Though these factors may not be enough to confer second-language status upon English in Norway, they do indicate that this language has a special position in Norwegian society and that the learning conditions are more favourable than for other languages. It will therefore not be inappropriate to compare the results from this study with other studies within the field of SLA as well as FLA, provided that differences in circumstances are given due consideration.

2.2.4 Age, input and ultimate attainment

Many people will be able to provide anecdotal evidence that children are amazing language learners who will pick up a second language in record time if given the chance, whereas adults usually struggle significantly and never quite succeed. By implication, this leads to the principle that "younger is better", which is a guiding principle in the Norwegian school system, as evidenced by the introduction of English as early as the first grade, age 6.

Since this is an issue that can be directly linked to the Critical Period Hypothesis (CPH) (cf. section 2.1.1), many studies have been conducted in an effort to investigate the accuracy of this principle. In reviewing the results of these investigations, it is important to distinguish between naturalistic SLA in the second language community and instructed FLA in a classroom setting (Muñoz 2008). Age does not necessarily have the same effect on the ultimate level of proficiency in the two types of learning. While the general tendency seems to be that in SLA, proficiency correlates well with age of arrival, researchers have had opposite results in measuring FLA: According to McLaughlin (1985: 175-177), older children and adults usually have better test scores than younger children, after the same amount of instruction, with differences of as little as one year giving significant results. This is often attributed to more developed cognitive abilities and greater aptitude for test taking, although a variety of different tests have been designed to even out the advantage of age and experience. McLaughlin finds that the conclusion to be drawn from these studies is that there is support for Cummins' (1979) linguistic interdependence hypothesis, which holds that "the level of competence a child attains in a second language learned in a school context is a function of certain competencies attained in the child's first language" (McLaughlin 1985: 9). Thus, "older learners, whose ability to deal with literacy-related language is more developed, would acquire cognitive/academic second-language skills more rapidly than younger learners" (McLaughlin 1985: 177). In other words,

the language skills a learner already has, facilitate the acquisition of similar skills in a new language (cf. Simensen 1995, on consciousness raising).

With different results from studies of SLA and FLA, we see that age alone is not a reliable indicator of a person's success in learning a new language. It is, however, a factor that is easy to measure; other, related, influences are more "messy" and unstable. A person's age is not negotiable and it is therefore a good starting point, especially when trying to determine whether there are biological and maturational constraints on language learning. On the other hand, it is difficult to tease apart the effects of age and amount of learning over time. Similarly, learning can be quantified in terms of time passed since the onset of acquisition (common in SLA studies) or in terms of amount of input, measured in hours of instruction (common in FLA studies), but whatever method is used, it is impossible to give a completely reliable measure of the actual amount of input a learner receives, as there is great individual variation. Researchers cannot control for each learner's exposure to input outside the learning situation or the amount of interaction with L1 speakers.

Another problem with using age as a starting point is that true language acquisition is often said to begin at the age of significant exposure, that is the age when full immersion in the L2 context begins, and not at the age of first exposure, when contact with L2 speakers may be limited and/or sporadic (White and Genesee 1996, Muñoz 2008). It follows from this strict interpretation that instructed L2 learning in an L1 setting cannot be regarded as "real" L2 acquisition at all. Studies of FLA can therefore only say something about rate of learning, given a certain amount of instruction, and about different stages of learning (see the discussion of interlanguage in section 2.2.5 below); they cannot predict foreign language learners' ultimate success. In accordance with this line of thinking, White and Genesee (1996) conducted a study of age effects in highly proficient speakers of English, where they ignored any instruction prior to the learners' arrival in English-speaking Canada, that is, their age of significant exposure. The subjects came from a variety of language backgrounds, but mainly Canadian French. The purpose of the study was to determine whether speakers with near-native proficiency were able to reach native-speaker competence. Native-speaker and non-native-speaker groups served as controls. White and Genesee found that both in grammaticality judgment tasks and written production, near-native speakers performed at the same level as native speakers, regardless of age of first exposure, although their results also indicate that "in general younger learners are more likely to achieve near-native proficiency than older learners" (1996: 258). They take this as evidence against the Critical Period Hypothesis, but stress that although native-like ultimate

attainment *can* be achieved, it is not the norm; age effects do exist, but must be attributed to other factors.

Gass and Selinker point out that the only area where there are obvious and consistent age effects is phonetics. As they put it, "there is a general consensus that most older individuals cannot reasonably hope to ever achieve a native accent in a second language. There is no such consensus about other areas of language" (2008: 407). The reason for this has received several explanations, one of which is the sense of identity that the native accent provides (see also Stevick (1976: chapter IV) on this topic). One might also suggest that accent has to do with fine motor skills and the physical production of speech, rather than cognitive abilities, and therefore relies more heavily on habits acquired early in life.

Accent notwithstanding, learners of all ages are certainly capable of achieving high L2 proficiency, whether the setting is naturalistic, formal or both. In the case of FLA studies, Muñoz attributes better results in older learners to their "superior cognitive development", and if this is so, "no differences in proficiency are to be expected when differences in cognitive development also disappear with age" (2008: 581). Thus, older learners should be expected to demonstrate better language skills (after a certain amount of instruction) than younger ones, just as they do in their L1.

In conclusion, age effects cannot be analyzed separately from other factors and in FLA studies possibly not at all. Age is only one component that is inextricably linked to other factors, such as length of residence, amount of instruction/input, and cognitive development. In considering studies that include age as a variable, one must be aware of what they actually measure: rate of learning; competence or proficiency; overall or partial proficiency; proficiency after a certain amount of time or instruction; or ultimate attainment, to name a few. It seems that it would be fruitful to make a distinction between *age of acquisition* (age of arrival or age of significant exposure) and *cognitive age* (the learner's maturational stage, cf. Jarvis and Pavlenko's *age at task* (2008: 197)), though neither can be separated from chronological age.

In the present study, the learners are from two different age groups, and the L2 groups are both very homogeneous in that all subjects have received the same amount of instruction over the same amount of time, based on the same curriculum. It is impossible to control for extracurricular input, but none of the learners have regular interaction with native speakers of English. Age at the onset of learning is therefore not a variable in this study, only age as a measure of years lived. However, a distinction is made between age and proficiency level, as the two do not entirely correspond (see section 4.8.1).

2.2.5 Gender

Care has been taken to obtain a gender-balanced data material, although it is highly uncertain whether gender is a significant factor in the use of the progressive aspect. In general, however, there are studies that have found evidence to suggest that girls and boys process language differently, e.g. Hartshorne and Ullman's (2006) investigation of English past tense morphology. They find that patterns of girls' and boys' overgeneralization of the past-time marker *-ed* differ qualitatively and attribute this to girls' learning language patterns associatively, while boys have a more rule-governed approach.

Others who have taken an interest in gender and language learning are Pavlenko et al. (2001) in their book *Multilingualism, Second Language Learning and Gender*, where second language learning, among other things, is related to the place of gender in culture and identity. McKeough and Genereux (2003) also found gender differences in their study with respect to narrative styles. Similar thoughts are common in layman's perceptions of gender and language abilities; girls are traditionally thought to be more communicatively orientated and have greater language aptitude, whereas boys are more logically and mathematically inclined. On this background, I find that the possibility of gender effects upon language learning, both in general and as regards specific linguistic patterns, is great enough to include this category, at least where the linguistic categories are large enough to make the material representative. It is however, not expected to have as great an impact as age and L1.

2.2.6 Interlanguage

The term *interlanguage* (IL) originates from Selinker's article by the same title[16], where he discusses the language of L2 learners. This language may or may not show traces of influence from the learners' L1 and the term therefore covers L1-related transfer, general second-language learning strategies, as well as learner behaviour related to L2-specific challenges, and more. Earlier, learner language had just been seen as a flawed version of the target language; now researchers started to regard it as a system in its own right, "a separate linguistic system based on the observable output which results from a learner's attempted production of a TL [target language] norm" (Selinker 1972: 214). Though IL is a version of the target language that each learner creates (Gass and Selinker 2008: 73), and therefore highly idiosyncratic, it has become clear that learners use their L2 systematically and that their errors are not made at

[16] Though Selinker introduced the term a few years earlier, this article is where it was first thoroughly presented.

random[17]. Rather, errors are seen as evidence that the learner is exploring possible rules of the target language. The dynamic nature of IL can be seen in the fact that learners go through stages of learning and sometimes even revert to earlier stages. However, learners do not normally reach the target language norm they presumably aim for, at least not in all areas of language use. This failure to reach a target-like stage of performance, and instead continue to use an IL form, is referred to as *fossilization* or *stabilization* (Selinker 1972: 215-216, Gass and Selinker 2008: 14, 175), a phenomenon that perhaps applies to adult L2 learners to a greater degree than to children. The IL hypothesis was originally based on observations of adult learners, but has been widely used in studies of child L2 acquisition as well.

While IL is seen as a strictly L2-learner phenomenon, L1 learners also have a kind of "interlanguage" – stages on the path to a fully developed language – in that it differs from adult usage and proficiency. Some of this divergence might just as easily be referred to as 'genre', 'register', or 'style'; people generally adjust their language use to conform to certain situational norms or to the expectations of their interlocutors. Examples of this include "motherese" - the way mothers talk to their children (e.g. Fernald 1985); legalese – complicated legal writing (e.g. Benson and Kessler 1987); and "foreign talk" – the kind of language native speakers use when they talk to foreigners (e.g. Valdes 1998). However, it differs from the definitions of these terms in that it is not different from mainstream adult language (primarily) by choice, but rather because adult proficiency has not yet been reached. An interlanguage may be described as an idiosyncratic language system created by the learner based on available L2 input and as such it has much in common with the theories of L1 learning presented by e.g. Gopnik (2001) and Tomasello (2003a) (see section 2.1.3), where the construction of grammars, and making and testing of hypotheses are crucial (see also Gass and Selinker (2008: 122)). L1 learners do not face the challenge of dealing with two conflicting language systems and in this respect the path to learning may be less complex than for L2 learners. The latter group, no matter what age, is influenced by language transfer to some extent. However, Rocca (2007) finds evidence that child L2 learners behave more like L1 learners than adult L2 learners in their approach to learning morphological features. Rather than viewing L1 and L2 acquisition as a clear dichotomy, SLA research could profit from construing language learning as a continuum from

[17] Cf. the difference between 'error' and 'mistake': "The speaker who makes a mistake is able to recognize it as a mistake and correct it if necessary. An error, on the other hand, is systematic" (Gass and Selinker 2008: 102). This distinction is also reflected in the generative linguistic differentiation between 'competence' and 'performance', although this mainly applies to native speakers of a language, and in Saussure's (1972) 'langue' and 'parole'.

child L1 to adult L2 acquisition[18]. In this view, the L1 is more entrenched the older and more cognitively advanced the learner is and will thus provide more grounds for L1 influence. Similarly, the younger the learner is, the more open s/he will be to the L2 and general language learning strategies.

2.2.7 L1 influence?

The role of the first (or other previously learned) language(s)[19] has been much debated and investigated in SLA research. This section will present some of the issues and results that have emerged over the years. The first one, in 2.2.7.1, is the question of what L1 influence is and in which contexts it may be found. The following sections contrast this with alternative explanations of L2 development. The first focus is on learning strategies that do not take any specific language into account. Next is a section on the view that any given language has specific challenges that are common to all who learn it as an L2, before section 2.2.7.4 presents the theory that L1 and L2 learning processes are essentially the same, only with different learning conditions that may influence both process and product. Finally, section 2.2.7.5 outlines suggested methodology for distinguishing L1 influence from other types of influence on learning.

2.2.7.1 What is L1 influence?

The first problem researchers are presented with is whether first language influence, commonly known as *transfer* or *crosslinguistic influence*[20], exists as all. This may seem a strange debate to anyone who has dealt with L2 speakers: Certainly, there are usually very easily perceptible indicators that the speaker is not using his/her first language and if these are not caused by L1 influence, how else can they be explained? All the same, this issue has gone through shifting views over the years. While no one will deny that a person's use of an L2 may betray his or her origin, there is some disagreement as to whether these traces of an L1 - be it accent, syntax or

[18] Recent findings suggest that SLA studies have relied too heavily on comparison with monolinguals, who do not possess the same language knowledge as bilinguals at any stage or proficiency level. By this line of reasoning, all groups of informants should be selected from the wide range of speakers of two languages that can be found, from simultaneous, balanced bilinguals to adult L2 learners. This would set research on interlanguage, as well as age effects, in quite a different relief; as Ortega puts it, "[t]he putative impossibility to attain nativelikeness after a certain age, if reinterpreted under a bilingual lens by SLA researchers themselves, may turn out to mean that it is impossible for bilinguals to be monolinguals" (2009: 27).

[19] Much research shows that any previously learned language may influence the learning of a new L2 (see e.g. Jarvis and Pavlenko (2008) for a presentation), but for the sake of simplicity, this discussion will mainly be limited to the effects of the L1.

[20] These terms will be used synonymously throughout this work (see discussion in Jarvis and Pavlenko (2008: 1-3)).

lexical choices – are relevant to our understanding of L2 learning. As will be discussed in the next sections, a fair amount of learner behaviour may be attributed to L2 learning in general, regardless of which language is learned, or to developmental sequences of a specific L2, regardless of L1 background. The question is, then, whether a learner's L1 is a major source of his/her understanding of the L2 or whether transfer is simply a strategy used to fill in "gaps" in the learner's mastery of an L2 by resorting to the more extensive knowledge of the L1. The latter strategy is known as the *ignorance hypothesis* (Newmark 1966, cited in Jarvis and Pavlenko 2008: 8).

Various theories have been used to explain or support the notion of transfer, most notably the *Contrastive Analysis Hypothesis* (CAH) (Lado 1957), which predicted that elements that are similar in L1 and L2 will be easy to learn and elements that are different will be difficult to learn. This idea was not novel in itself, but it was used as a starting point for identifying problems particular groups of learners would run into. By analyzing two languages and pointing out differences and similarities, researchers, and subsequently teachers, would be able to foresee and understand the problems learners with specific L1 backgrounds were struggling with.

Opponents of the CAH objected that a detailed survey of differences and similarities of two languages did not necessarily serve as a basis for error prediction. On the contrary, learners often made errors that were not predictable from such an analysis, although it could be useful in order to provide an explanation for certain observed errors (Odlin 1989). Other types of errors might just as easily be attributed to other sources, e.g. what Selinker (1972: 215) terms *transfer-of-training*, that is, errors as a result of influence from the learning situation. Errors might also arise as a result of several influences combined and therefore be hard to attribute to a single source.

In addition, critics challenged the idea that differences made L2 learning qualitatively different from L1 learning. Odlin (1989: 17-20) cites several studies that show that learners from various language backgrounds as well as L1 learners tend to omit the copula *'s*, as in *That very simple*. Seen individually, the results from these studies may be given various explanations. It makes sense, for instance, that L1 speakers of a language like Chinese, which does not have a copula, should make this error. Spanish, on the other hand, is like English in this respect and L1 speakers of Spanish would therefore not be predicted to produce sentences of this kind. As for L1 learners of English, Universal Grammar would predict that the children set their parameters to allow for a copula, and yet they also struggle with this construction. A pattern

then emerges where *'s* is not easily acquired by any type of learner and the nearby solution would be to attribute this to some kind of general learning strategy.

Yet, for all the validity of these objections, it is doubtful that there are grounds for dismissing, or at least disregarding, the notion of L1 influence entirely. Odlin (1989: 23-28) gives several reasons for this:

- Errors, also treated under the headings *interference* or *negative transfer*, are not the only evidence of transfer; first language influence may also be *helpful* in learning a second language and lead to *positive* transfer.
- Universal developmental sequences do not rule out L1 influence; these two factors may in fact work together.
- Transfer is not just a result of habit formation, where one habit replaces another (or not), and is therefore not inextricably linked to behaviourist theories, as has been one of the critics' major objections.
- Scepticism towards transfer is often based on an overemphasis on morphology and syntax, whereas evidence from areas such as phonology and vocabulary is disregarded. Illustrating the difficulty in isolating the effects of transfer, Odlin points out that "(1) transfer can occur in *all* linguistic subsystems, including morphology and syntax; and (2) other influences besides transfer affect all subsystems" (p. 23, author's italics).
- "Transfer is not simply a falling back on the native language" (p. 26). Learners can profit tremendously from similarities between the L1 and the L2 to enable them to focus their attention on unfamiliar aspects of the L2. This will increase their learning rate as compared to learners with an L1 that is more distant from the L2. In addition, the L1 influence does not always show a one-to-one correspondence between L1 and interlanguage usage. Moreover, transfer can serve as a beneficial strategy in listening and reading comprehension.
- Transfer is mainly thought of as influence from the learner's first language, but knowledge of two or more languages can also influence a third one in unpredictable ways, depending on which languages they are, in which order they are learned and how they interact. For a discussion of this, see also Jarvis and Pavlenko (2008).

Over the years, the role of transfer has been given more or less weight with shifting trends, but the past couple of decades have seen a revival of transfer research. Jarvis and Pavlenko (2008) have given a comprehensive and structured account of this phenomenon. They

identify four important findings in recent transfer studies, as well as other areas of linguistics, pertaining to theoretical accounts of this field:

- *Linguistic relativity* In their own words, "[t]he first and perhaps most important theoretical development in CLI is the growing recognition of the relevance of linguistic relativity, or the Sapir-Whorf Hypothesis, to transfer research" (2008: 15). Scholars such as Lakoff (1987), Lucy (1992), Gumperz and Levinson (1996) and Slobin (1996) have re-examined Whorf's (1956) works on linguistic relativity and reinterpreted them in a multilingual paradigm, as they claim that much of the arguments against this theory are based on what Jarvis and Pavlenko refer to as a "monolingual bias". Contrary to his opponents' arguments, Whorf's view was that knowledge of more than one language may contribute to an expansion of the speaker's worldview. Jarvis and Pavlenko take this as a starting point to examine transfer effects in relation to language and cognition. This issue will be further discussed in section 2.3.
- *The multicompetence approach* This theory holds that knowledge of more than one language does not mean that the speaker possesses the knowledge equivalent of two (or more) monolinguals. Rather, the different language systems interact to form a "unique but nevertheless complete linguistic system" (Jarvis and Pavlenko 2008: 17). Unique, in the sense that each bilingual or multilingual speaker's combination of languages and/or proficiency level is unlike any other. Jarvis and Pavlenko stress that this interaction is a "natural and ongoing process" and that even L1 competence is dynamic in nature and "may be subject to both L2 influence and L1 attrition (or the loss of L1 abilities)" (ibid.; see also section 2.1 above).
- *Language attrition* Research in this field has made it possible to distinguish between crosslinguistic influence and other phenomena, such as more universal attrition processes and incomplete acquisition of a heritage language L1. These findings, however, are more relevant to reverse transfer, from L2 to L1 and will not be discussed further here.
- *Bilingualism theories* Much important research has been done in bilingualism, a field closely related to SLA. From this work have sprung theories and models pertaining to how the bilingual mind works and how the different languages interact, particularly how the bilingual lexicon is linked to the speaker's memory of events that have taken place in different language contexts. Especially relevant to transfer research are models that "allow us to see how the insufficient inhibition of a non-selected language (i.e., a language the

person knows, but not the one the person intends to use at the moment) may lead to transfer" (Jarvis and Pavlenko 2008: 19). Some of these ideas will be explored in section 2.3 below.

As already mentioned, transfer can occur in any linguistic subsystem, including the areas most relevant to our purposes: syntax and morphology. (Examples are found in e.g. Jarvis and Odlin 2000, De Angelis and Selinker 2001). However, when it comes to the acquisition of tense and aspect, which will be discussed at length in chapter 3, little evidence of transfer has been found, which leads Bardovi-Harlig (2000: 411) to conclude that L1 effects are scarce and non-significant in this particular area. Collins (2002), on the other hand, found that, though her results were largely consistent with the Aspect Hypothesis (see chapter 3), Francophone learners of English showed a tendency to use a perfect construction with telic verbs (i.e. verbs whose meaning includes a clear endpoint) where the simple past might be expected. This was seen as an influence from the French *passé composé*, which is structurally similar to the English perfect but has quite different usage. Bardovi-Harlig therefore somewhat modifies her claim and finds that "it may thus be in the details rather than in the larger picture that first language influence is found" (2000: 411).

Syntactic transfer, both forward and reverse, has been found in domains such as grammaticality judgments, comprehension and sentence interpretation, and production; in the case of the latter, adverbial placement seems to have received the most attention, but there are also studies that show transfer related to areas such as over- or underproduction of certain syntactic features, or erroneous use of argument structures (for more on this, see Jarvis and Pavlenko 2008: 96-102). Evidence of transfer has also been found in word order studies, such as Zobl (1980), who in a study of pronoun placement found that English-speaking learners of French would sometimes use the English pattern of placing the direct object pronoun postverbally, as in *Je vois les*. However, the opposite transfer pattern – items such as *I them see* – was not common in L1 French learners of English. As Ortega (2009: 32) points out, if this is merely a result of L1-L2 differences, then it is hard to explain such a one-directional pattern. Again, Bardovi-Harlig's remark that L1 influence is in the details, might be valid; in unmarked clauses, English consistently places the object after the verb, whether it is a pronoun or not. French, on the other hand, has pre-verbal pronoun placement, but heavier elements are placed post-verbally. The object of transfer might therefore be consistency in object placement, rather than the position of the object pronoun. Such an interpretation would explain why the L1 French speakers fare better than the L1 English ones, as it seems it would be harder to acquire an unfamiliar pattern than to collapse two distinct L1 categories into one in the L2. This is parallel

to Odlin's observation, regarding the English verb *know* vs. Spanish *conocer* and *saber*, that "Spanish speakers learning English seem to have little difficulty in associating two lexical senses with one form" (1989: 17), while English speakers have problems learning this difference in Spanish.

Other relevant concepts are *psychotypology* and *transferability*: An important factor in explaining L1 influence is the learner's perception of both languages involved. Transfer is not something that just "happens" when the learner uses an L2; it is more likely the result of choices based on the learner's evaluation of differences and similarities between the two languages. Kellerman (1983), who has done research on L1 Dutch learners of English, whose two languages are closely related, formulated two general constraints that are crucial to the occurrence of language transfer. The first one is called the *psychotypology constraint* and postulates that the likelihood of transfer increases the more typologically similar the two languages are *perceived* to be by the learner. In other words, this constraint is not about actual typological similarity, as described by linguists, but rather about the learners' own intuitions, although the two may certainly coincide. In this view, learners will analyze the two languages and decide which features are similar and which ones are different. The features that are judged to be similar may then be relied upon in the developing interlanguage, whereas the features that are judged to be different are avoided. Kellerman referred to this strategy as the *transferability constraint*. This may in some cases lead to more transfer-related errors the more proficient learners become, since greater knowledge of the L2 allows for a more sophisticated evaluation of the relation to the L1, as Kellerman (1978) found in his study of Dutch learners' perception of the verb *break*. Intermediate-level learners correctly judged this verb to allow for both transitive and intransitive usage, while advanced learners in many cases tended to dismiss the intransitive usage. Kellerman suggested that the learners made this decision because only transitive usage is prototypical and therefore transferable, whereas *break* as an intransitive verb sounded "too Dutch". He refers to this avoidance strategy as "homoiophobia" – "fear of similarity" (Kellerman 1997: 280); if a perfectly acceptable L2 item is seen as an L1 idiom, it is perceived as unacceptable in the L2, regardless of whether this actually holds true. Such items are seen as deviating from a prototypical norm and Kellerman therefore suggests that the governing factor is whether or not they appear to be *marked* in the L1.

From this short and not very exhaustive overview, we have seen that transfer is a complex matter, and we shall return to some of these complexities in connection with Slobin's theory, *thinking for speaking,* in section 2.3. L1 influence may lead to overt usage of L1 items, as well as suppression of the same. In addition, L1 influence may result in positive transfer,

which is difficult to detect, but may have an influence on the *rate* of learning, rather than on whether or not the L2 is learned correctly. In the next sections, we shall also see that there are general strategies that L2 learners rely on, as well as common patterns that learners of various L1 backgrounds seem to display in the specific L2s. L1 influence competes with these factors and an investigation such as the present one will not benefit from assuming *a priori* that L1 influence is or is not at play.

2.2.7.2 General strategies

While many of the strategies learners use to get a grasp of the L2 rely on knowledge of their L1 and/or a dawning awareness of the L2, there are also a number of approaches that are common to large numbers of L2 learners regardless of the specific languages in question and which cannot be explained by reference to particular features of any one language, but must rather be seen as pertaining to a more general view of how second-language learning functions[21]. This section will touch upon a few of these, as they may prove relevant to the interpretation of the analysis results in chapter 5. Unless otherwise specified, this short presentation draws on more extensive discussions in Gass and Selinker (2008), Jarvis and Pavlenko (2008) and Ortega (2009).

Strange as it may seem, the first strategy that must be mentioned is *transfer*. The details of transfer effects are certainly related to the learners' L1, but transfer as a phenomenon is part of people's repertoire of second-language learning strategies. Both positive and negative transfer is based on the assumption that some or all languages have some things in common and that these commonalities will be of aid in the L2 learning process. The distinction between transfer as a *strategy* and transfer *effects* may not have any practical consequences, but it is yet another reminder of the importance of clarifying the level of analysis in both theoretical and empirical research. It is also an indication that in some cases it may be difficult to clarify whether learner language items are a result of L1 influence or general strategies, or both, since these may very well work together, as Odlin (1989) points out. A similar case is another general strategy, *markedness*, which very superficially may be described as the reluctance, or even inability, to use L2 features that are, or are perceived as, marked, whether or not corresponding features are acceptable in the L1. Jarvis and Pavlenko choose to discuss markedness in tandem

[21] Note, however, that the effects of these strategies may in many cases be directly linked to individual languages and L1 influence. Nevertheless, they will be treated under a separate heading because they pertain to the way learners approach the task of learning a new language in general, which may or may not involve focus on the interaction between the two languages. Moreover, it is often difficult to decide whether these strategies stem from such a focus or not.

with prototypicality, as "both markedness and prototypicality …relate to the degree to which a form, feature or structure is marked, special, atypical, or language-specific versus being unmarked, basic, prototypical, or universal" (2008: 186). As seen in the previous section, Kellerman's (1978) study of the verb *break* is a good example of markedness and prototypicality effects. More generally, several phonological studies have shown that voiced stops are more marked than voiceless ones in languages across the world. The effects of this are seen e.g. when German learners of English have to deal with voiced stops word finally – a marked context – when they are accustomed to the unmarked devoicing in their first language. Importantly, the German phoneme inventory does include voiced stops and where Germans experience difficulties with this, the opposite pattern is no obstacle for English learners of German (Ortega 2009: 37-38).

Markedness is a form of *avoidance*, another general strategy. Many studies have shown that learners tend to steer clear of L2 items that pose some kind of problem for them. These items may be problematic on different levels; for example, they may be difficult to produce, as is often the case with phonological features, or they may be difficult to grasp conceptually, as might be the case with e.g. relative clauses (Schachter 1974). Analyzing avoidance in learner language is not necessarily an easy task: For one thing, identifying something that "isn't there" can be a challenge in itself, but even more problematic is determining the learners' reasons for using this strategy. Avoidance can be found both when an L2 item is too different from the corresponding L1 item (or does not exist in the L1 at all) and when the L2 item is too similar to L1 usage, as seen in Kellerman's (1978) study; it is therefore hard to predict which features are likely to be avoided and to what extent. In addition, learners may avoid a feature simply because it has not yet been automatized or fully understood, with no reference to the relation between the L1 and L2, often because the structure in question is complex and therefore difficult to acquire.

Avoidance rarely means that a feature is not used at all; more often we see that learners tend to *underuse* certain L2 forms, that is, use them less often than is conventional in the target language. This may or may not result in errors, depending on whether an item is omitted in an obligatory context (see e.g. Jarvis and Odlin 2000). A related, but quite opposite phenomenon, is *overproduction*, which is often reported at least in the initial stages of learning the English progressive (e.g. Axelsson and Hahn 2001). Overproduction may be a result of L1 influence, but can just as easily be related to instructed learning, where too much emphasis is often placed on the item in question, as has been reported in the case of this structure (cf. Selinker's 1972 transfer of learning; see also Lightbown 1983).

Overproduction can also be linked to the effects of *frequency and salience* (cf. section 2.1.4); L2 items that are encountered very frequently or that for some reason appear to stand out and are easily noticed, tend to be used more often than is usual in the target language. The learners' strategy is thus to notice and use such items, at least as frequently as in the TL. Again, the English progressive is an example of this, and these effects combined with explicit attention to it in the learning situation, may lead to a highly exaggerated focus on this structure. This will be further discussed in chapter 3.

Finally, there are two related strategies that are often found in early interlanguage: *simplification* and *overgeneralisation*. The former refers to "a process that is called upon when messages must be conveyed with little language" (Ortega 2009: 116). Understandably, when a learner does not have the necessary linguistic resources available, s/he must make do with what s/he has learned. One result of this is that one form is used for only one of its functions; the One to One Principle (Andersen 1984). Conversely, one form may be extended to similar, but incorrect, contexts as in the oft-cited example of the past tense marker *-ed*, a case of overgeneralisation.

The strategies discussed above are often connected; for instance, markedness can be a form of avoidance, overgeneralisation may be a frequency effect, which often leads to overuse, etc. We see that learners juggle all these strategies and as they go along their path of learning, they often *restructure* their usage accordingly, in line with Gopnik's (2001) *theory theory*. The outcome is not necessarily greater accuracy, as learners have been known to display correct usage first, presumably based on rote learning, which is then modified into less accurate behaviour, only to revert to correct usage at a later stage; a process known as *U-shaped behaviour* (e.g. Lightbown 1983). This and other learner behaviour shows their changing awareness of the L2 as new knowledge is gained and linguistic patterns are digested.

2.2.7.3 L2-specific learning paths

The above discussion has outlined various outcomes of second language learning where the focus is on the learners' previous knowledge and expectations, but there are also numerous studies that show that there may be properties of the specific L2 in question that lead learners from various L1 backgrounds down the same paths of learning. As Ortega puts it, "[a]ll L1 groups will traverse the same series of approximations to the target L2 system, and will be challenged, broadly speaking, by the same aspects of the L2" (2009: 35). In this view, the main differences between various L1 groups lie in which of these aspects pose the greatest challenges and the rate at which they are overcome. The developmental path of the English progressive is

generally reported to be little prone to L1 influence, as in Kleinmann's (1977) study of Arabic, Spanish and Portuguese learners. The progressive was not any harder to acquire for the Arab learners than for the other two groups, although Arabic does not have a similar structure, while Spanish and Portuguese do. Dulay and Burt's (1974a) study suggests that child L2 learners acquire English inflectional morphemes, *-ing* among others, in the same order regardless of L1 and that this learning path is parallel to that of L1 learners of English.

Another example is the widely studied negation in English, which seems to follow the same stages of acquisition (at least initially) regardless of negator placement in the L1, as attested for German by Wode (1977; cited in Gass and Selinker 2008: 142), Norwegian (Ravem 1968) and Spanish (Cancino et al. 1978) (the latter two cited in Ortega 2009: 35). Similar results have been found for English question formation (Ortega 2009). As English is the world's most widely studied language, including as a second language, most evidence for this view comes from English and as such may not be representative. There are, however, studies of other languages that point in the same direction.

2.2.7.4 The L1=L2 hypothesis

Although this has been alluded to in the previous sections, it is worth discussing explicitly whether L1 and L2 acquisition are different or similar phenomena. The latter view is referred to as the *L1=L2 hypothesis* and originates from studies by Dulay and Burt (1974a, 1974b, 1975), where they applied methods from L1 morpheme order studies to child SLA and found very similar results, even with language backgrounds as different as Chinese and Spanish. This hypothesis then contrasts with the view that L1 influence is an important factor in the L2 acquisition process. The hypothesis is thoroughly reviewed by R. Ellis (1985b) and the following discussion is largely based on his article.

The first thing Ellis does is try to define the hypothesis by introducing certain restrictions. These are based on the observation that "[i]n its pure form the hypothesis states that, all other things except knowledge of language being equal, FLA [first language acquisition] is the same as SLA. In practice, however, all other things are not equal" (1985b: 9). Such difference have already been recognized several times in this chapter and Ellis also points to factors such as age and cognitive maturity. The hypothesis can therefore only be applied to areas specifically related to language and not where other cognitive abilities, such as general memory, are involved.

The next step is to decide at which *level* the hypothesis should be applied. Ellis distinguishes between the *product* and the *process* of learning. This is an important point, as

one must decide whether the hypothesis should predict that L1 and L2 learners would produce identical language, as regards either type of errors or orders of acquisition, or that they would arrive at their conclusions using the same strategies. It is possible for these alternatives to co-occur, but they must nevertheless be kept apart if the hypothesis is to be tested, since similar products do not necessarily come from similar processes. Ellis uses a typical learner utterance, *No like Daddy*, as an example where the same product could potentially stem from two different processes; for an L1 Spanish learner of English, this may be the result of either transfer or an L1-like approach to learning negation. Finally, but no less important, the validity of the hypothesis depends on whether it predicts complete identity of both product and process (the strong version) or whether it suffices that they are similar (the weak version). This will have great consequences for the interpretation of the results.

Ellis reviews a number of studies of both product and process, but finds no conclusive evidence in favour of the L1=L2 hypothesis. There is a tendency, however, that these studies lend support to the weak version of the hypothesis as far as product goes. As for process, Ellis proposes that the most important thing that L1 and L2 learners have in common, is the need to interact linguistically with other people. As Ellis puts it,

> The L2 learner shares with the L1 learner the need to articulate meaning intentions of a greater complexity than he is capable of, either because he simply lacks the necessary language or because he cannot construct and execute plans sufficiently quickly. All language learners need to communicate beyond their linguistic means.
>
> (1985b: 17)

Based on evidence from these studies, he further suggests that

> both FLA and SLA derive from the learners' knowledge of how reality can be segmented into perceptual categories which match the semantic organization of language. It suggests that human cognition is at the root of how language is used and learnt and provides strong grounds for supporting the Ll = L2 hypothesis.
>
> (1985b: 18)

Adults, whose ability to produce complex utterances far exceeds children's, nevertheless tend to use semantically simplified language when they are, as Ellis puts it, "under communicative pressure" (ibid.). With such a focus on communicative and interactional needs, Ellis concludes that the similarities between first and second language acquisition largely depends on the degree of formality of the learning situation; SLA based on informal learning similar, as far as possible, to that of L1 learners will lead to the same strategies for solving communicative challenges. He

does not however, dismiss the benefits of explicit learning, but rather seems to regard this as a useful supplement to communicative learning strategies.

All in all, Ellis' discussion points to a rather vague view of the relationship between L1 and L2 learning, as does much of the rest of the literature. A hypothesis that, whether one considers the strong or the weak version, relies on such important caveats as the lack of equality of the learning situation, differences in cognitive maturity, whether or not the similarities lie in the product or the process, etc., is not likely to yield fruitful results, not least when the hypothesis posits such a general prediction. L1 and L2 learning may be similar in some respects, different in others, and this should not pose a great problem, other than for those with a strong partiality to clear-cut categories. This is not to say that comparison between L1 and L2 learning is useless, rather that it can give insight only about tendencies, not absolutes. Ellis' review shows such tendencies, and they are comparable to Tomasello's (2003a) and Gopnik's (2001) theories of child language learning presented in sections 2.1.2 and 2.1.3: children are driven by the need to interact with other language users and to communicate concepts that are important to them at any given point.

2.2.7.5 How do we know?

One difficult question remains: How do we recognize L1 influence; how can we tease it apart from all other factors that may have an effect on L2 learning? Except for the most obvious cases[22], the simple answer seems to be: we cannot. All we can do is demonstrate the likelihood that certain aspects of learner language are the result of learners' reliance on L1 knowledge. According to Jarvis (Jarvis 2000, Jarvis and Pavlenko 2008), such a demonstration calls for a rigorous methodology, as well as a theory-neutral definition of L1 influence. This methodology should be such as to demonstrate the following:

1. Intra-L1-group homogeneity in learners' IL performance: Evidence that the behavior in question is not an isolated incident, but is instead a common tendency of individuals who know the same combination of languages.

2. Inter-L1-group heterogeneity in learners' IL performance: Evidence that the behavior in question is not something that all language users do regardless of the combinations of L1s and L2s that they know.

3. Intra-L1-group congruity between learners' L1 and IL performance: Evidence that a language user's behavior in one language really is motivated by her use (i.e., the way she demonstrates her knowledge) of another language.

(Jarvis and Pavlenko 2008: 35)

[22] E.g. French learners of English who use their native uvular /r/, or English learners of French who take *travailler* – 'to work' – to mean 'to travel'.

Jarvis (2000: 255) notes that each of these criteria may point in the direction of transfer by themselves, but only by using all three is it possible to rule out other factors with any degree of certainty. This methodology seems by far to be the best one to date, but as always, all evidence must be met with a critical eye and all potentially interfering factors born in mind[23]. Jarvis and Pavlenko do point out that these criteria must be considered together and form the basis for the researcher's *evaluation* of the combined evidence. Last, but not least, they recognize that all the evidence needs not come from one empirical investigation, so that some of it may come "from previous studies, from existing language corpora, or from common knowledge" (2008: 36).

Together with these criteria, Jarvis discusses the need for a uniform, theory-neutral definition of L1 influence. He offers the following working definition:

> L1 influence refers to any instance of learner data where a statistically significant correlation (or probability-based relation) is shown to exist between some feature of learners' IL performance and their L1 background.
>
> (2000: 252)

Although rather broad and all-encompassing, such a definition works well as a starting point for contrastive studies, whether transfer is the main focus or not. With this methodology, the researcher should be well equipped to identify and evaluate L1 influence, or rule it out if that is the case. However, there still remains the question of what qualifies as L1 influence. How much does the L2 learners' interlanguage have to deviate from native speaker usage for it to be seen as L1 influence rather than a natural developmental path? As we have seen in the previous sections, features such as avoidance, overuse and underuse can stem from L1 influence and be identified as such by using Jarvis' methodology, but if these traits are not even noticeable without thorough contrastive analysis, they might only have moderate theoretical importance, or be useful only to advanced learners who seek to improve their otherwise flawless language stylistically, as Granger (1997) suggests in her analysis of English participle clauses. Be this as it may, I have chosen to include a discussion of L1 influence because of its *potential* relevance to the present study; the tentacles of transfer seem to be so far reaching that it cannot be ignored in any study that contrasts speakers of different language backgrounds.

[23] Jarvis (2000: 260-261) provides a list of other factors that should ideally be controlled for if L1 influence is to be established with any certainty. These factors include age, social background, language background, etc.

2.3 Linguistic relativity and the bilingual speaker

> *"My father once asked me if I knew where yonder was. I said I thought yonder was another word for there. He smiled and said, "No, yonder is between here and there." This little story has stayed with me for years as an example of linguistic magic: It identified a new space – a middle region that was neither here nor there – a place that simply didn't exist for me until it was given a name."*
>
> - Siri Hustvedt[24]

The "principle of linguistic relativity" has caused much heated debate ever since it was formulated by Benjamin Lee Whorf in 1940; the view that the language we speak somehow influences the way we interpret the world we live in (Whorf and Carroll 1956: 214, 221). Not only do people disagree as to the accuracy and relevance of this principle; they even seem unable to reach a common understanding of what exactly it is that the principle entails, not to mention what Whorf himself meant.

Many people who speak more than one language fluently have reported that they feel they "become a different person" or "think differently" when they speak different languages. These are of course highly subjective observations, and as such provide no evidence for theories of any kind, but they do capture the essence of what this controversy is all about: Does the language we speak influence our thoughts, and if so; in what way and to what extent? Questions like these become relevant when undertaking a study such as mine, which deals with speakers from different speech communities and their approach to a common language.

In this section, I will look at how some of Whorf's ideas are reflected and reinterpreted in present-day linguistics, particularly as presented in Slobin's (1987b, 1996) *thinking for speaking* theory. Then I go on to consider the implications of linguistic relativity in relation to language acquisition, both in general and with regard to whether insights from research on language relativity might be fruitful in the analysis of learner production of the English progressive.

[24] Hustvedt (2006: 1)

2.3.1 Thinking for speaking

"Such as are your habitual thoughts, such also will be the character of your mind; for the soul is dyed by the colour of your thoughts."

- Marcus Aurelius

Many aspects of the various interpretations of linguistic relativity have been explored, with equally varying conclusions. For the present purposes, the main focus will be on Slobin's development of Whorf's notions of habitual thoughts, as outlined in his theoretical model *thinking for speaking* (TFS) (1987b, 1996). Slobin shares Whorf's focus on concepts that *must* be expressed by obligatory grammatical structures, rather than the ones that *may* be expressed lexically[25]. He presents a theory that aims to explain a specific kind of thinking: the kind that leads to verbal representations of situations, for communicative purposes. Importantly, he insists on a change of focus from the static *entities* 'thought' and 'language' to the dynamic *processes* 'thinking' and 'speaking'. This way, what he aims to describe is not thought as such, but the cognitive process that leads to the online selection of linguistic features. In this selection process, speakers must attend to "characteristics of objects and events that a) fit some conceptualization of the event, and b) are readily encodable in the language" (1996: 76). He further claims that learning to speak a language means learning *language-specific* thinking for speaking, since languages do not make use of the same systems and categories, as the pioneering anthropologist/linguist Boas (1916 [1911]:198, in Lucy 1992: 12) pointed out. A distinction that is optional and rarely used in one language may be an obligatory grammatical feature in another. Slobin uses Turkish tense inflection as an example, where speakers must choose past tense form according to whether or not they personally witnessed the event, a distinction that speakers of many other L1s rarely even consider. However, the question of obligatory use is not a straightforward one. Strict adherence to habitual patterns is only necessary in order to avoid ungrammatical use; in other cases it is a matter of convention, as Slobin's data on aspectual contrast, based on the same "Frog stories" that the present project relies on, demonstrate (ibid.: 80). The majority of speakers follow their L1 norm, but there is enough deviation from this pattern to conclude that there are no absolute restrictions on which features speakers must or can verbalize. Slobin takes this as evidence against what he sees as Whorfian determinism; if the results were completely uniform, then thought would indeed seem

[25] Although Slobin quite explicitly distances himself from Whorf's "determinism", which really depends on how Whorf is interpreted, I find that on close scrutiny their views have much in common. It may be that 1996 was too early to come out of the linguistic-relativity closet; 15 years later, Athanasopoulos (2011), for one, has no such qualms.

to be trapped in a linguistic straightjacket. Yet, a coarse-grained opposition between obligatory determinism on the one hand and habitual patterns on the other seems too simple; a grammatical feature may be obligatory in some contexts and optional in others, even within one and the same language. For instance, English number marking on nouns is obligatory when the object in question is seen as a discreet entity, but ungrammatical if it is an instance of a mass noun. This obligatory distinction does not keep speakers from manipulating their habitual *evaluation* of a lexical item and thus *construing* them, in Cognitive Linguistic terms, as having shifting category membership: the mass noun *people* may be countable if it refers to e.g. 'peoples of the world' and *must* then be marked for number. Conversely, the conventionally countable noun *hedgehog* may be acceptable as a mass noun if it designates the meat of the animal[26]. In addition, there are nouns that are regularly construed as either count or mass, e.g. *(a) steak, (a) rock* (Langacker 2001: 6). Slobin stresses that such an evaluation, rather than objective features of the situation, is the basis for thinking for speaking (1996: 74-75). Thus, it is not features inherent in the *signifié* that makes a grammatical distinction (or the choice of a certain grammatical form) obligatory, but rather the way we construe it to align with the meaning of one form or the other.

The distribution of the English progressive aspect is more complex than that of number marking. There are some obligatory contexts that rely on factors such as tense and semantic content of the lexical verb (see chapter 3). Kleinmann (1977: 101), for one, points to observable actions, a context that Durst-Andersen (2000) sees as primary for this construction; this is not a strongly reliable criterion, though, as there are common exceptions such as sports commentaries, to name one. In many other contexts, the progressive is certainly the preferred aspectual choice, but by no means obligatory (for an elaboration see e.g. Langacker 2001). For the present purposes, the important point that Slobin makes is that speakers of languages that have aspectual oppositions, habitually make use of these, both in obligatory and non-obligatory contexts. Importantly, the *choice* of aspectual marker is obligatory and it is thus a feature that cannot be ignored, as it usually is in non-aspectual languages. This is not to say that languages that do not grammaticize this contrast are not able to express it. In many cases they display a similar distinction, using other means, such as different tenses or reduplication[27] (Slobin 1996: 81). This view of language learning and usage resonates well with theories of Cognitive Linguistics (CL) (e.g. Langacker 1987, 1991, 2008b, Taylor 2002, Tomasello 2003a), which hold that language use is both conventional, i.e. speakers follow established patterns, and

[26] I am grateful to Hilde Johansen for providing me with this rather unusual example.

[27] Cf. Lakoff and Johnson's (1980) famous conceptual metaphor MORE OF FORM IS MORE OF CONTENT.

constantly negotiated, i.e. speakers may introduce new meaning patterns and seek accept for these novelties in the linguistic community. To sum up, we may say that speakers *must* attend to and use linguistic items that are grammatically obligatory (based on the speaker's evaluation), but they are not obliged to exclude the ones that are not.

One important finding in the studies conducted by Slobin and his colleagues is that thinking for speaking patterns vary across age groups. Their data indicate that adherence to the L1 norm is strongest at around age nine, whereas both younger and older groups show more variation. Similar observations have been made by Lucy and Gaskins (2001), who investigated categorization patterns in speakers of Yucatec and English. Yucatec is a language that classifies objects by material rather than shape, but results from matching tasks indicate a marked difference in classification preferences between ages seven and nine; before this, results from Yucatec children were much more similar to those of their English peers. Athanasopoulos (2011: 32ff) takes this to mean that certain categorizations are innate or "prelinguistic" and that language learning may lead to either reinforcement or restructuring of these categorizations, a view that is supported by Gopnik and her colleagues, with particular reference to their studies of English- and Korean-speaking children (Gopnik and Meltzoff 1992, Gopnik and Choi 1995, Gopnik, Choi, and Baumberger 1996). More generally, McKeough and Genereux note a marked cognitive shift that takes place around this age, as regards the structure and content of narrative thought. Slobin, on the other hand, suggests that such age-related changes "may well be an effect of schooling" (1996: 81). Be this as it may, thinking for speaking patterns are neither static nor absolute; rather, the general conventions seem to vary with age/cognition and individual construals.

2.3.2 Thinking for L2 speaking

While Slobin's main concern is with first language learning and usage, he finds that the effects of thinking for speaking extend to second language learning as well. His argument is as follows:

> In brief, each native language has trained its speakers to pay different kinds of attention to events and experiences when talking about them. This training is carried out in childhood and is exceptionally resistant to restructuring in adult second-language acquisition.
>
> (1996: 89)

Slobin's analysis harks back to theories of contrastive analysis; to predict and explain difficulties L2 learners may encounter, one must compare their L1 and L2 and identify which features exist in both languages and which ones are only found in the L2. Presumably, the latter

are the ones that are problematic for learners. Slobin adds to these theories by providing a psychological explanation for this type of learner behaviour. In addition he narrows down the type of grammaticized categories that are particularly susceptible to source language influence, to those that have one important feature in common: "they cannot be experienced directly in our perceptual, sensorimotor, and practical dealings with the world" (ibid.: 91); in other words, abstract, human-made categories. By contrast, there are categories that are "obvious to the senses" (ibid.) and which therefore are only difficult to *automatize*, but not to understand. To illustrate, pronouns marked for biological gender constitute a quite obvious, and therefore learnable, distinction, whereas grammatical gender is notoriously difficult to learn. Aspectual distinctions arguably belong to the non-experiential group and may therefore be good candidates for thinking-for-speaking-induced learning problems.

This distinction between experienced and non-experienced categories seems in some ways to correspond to Jarvis and Pavlenko's *language-independent* and *language-mediated* concepts[28] (2008: 114), though their scope is broader and encompasses all kinds of linguistic expression. In acquiring these language-mediated structures, then, the notions of *conceptual transfer* and *conceptual restructuring* are central. The former may be explained as the process of applying L1 TFS patterns to L2 production, whereas the latter refers to the complete or partial acquisition of the L2 concept. As Jarvis and Pavlenko point out (ibid.: 120), conceptual transfer may lead to either target-like or deviant L2 performance, depending on the degree of congruence between concepts in the two languages.

Numerous studies have shown how L2 learners use L2 linguistic items in accordance with their L1 conceptualization rather than in a target-like manner. For instance, Jarvis and Pavlenko give the example of what qualifies as a *cup* or a *glass* to L1 speakers of Russian and English; their conceptualizations partially overlap, but differ when it comes to peripheral category members and their L2 usage reflects L1 rather than L2 concepts (ibid.: 120-121). However, the most interesting studies are those that investigate whether there is any development in the learners' categorization of the linguistic element in question. According to Annette de Groot[29], native speakers of a language expect foreign accents and grammatical errors, but both they and the learners themselves assume compatible world views; they therefore believe that when they use the same linguistic items, they express the same meaning. On the other hand, with exposure to the L2 and increased proficiency, learners may modify their

[28] Note, however, that categories that are *a priori* experienced and language-independent may well receive linguistic form and thereby become language-mediated.

[29] Key note speech at the LAUD conference, Landau, Germany, March 2012.

perceptions of L2 categories and display evidence of conceptual restructuring or change. This is possible because language, not only interlanguage, is dynamic and constantly restructured and negotiated; even new L1 concepts are acquired throughout an individual's lifetime. Jarvis and Pavlenko recognize four sources of conceptual change: developmental maturation and schooling; socialization into new professional communities; life changes; and exposure to new language-mediated concepts (ibid.: 153).

Language-mediated concepts or conceptual distinctions that are different in the L1 and L2 may be either completely new to the learner or a modification of already-existing ones. Athanasopoulos (2011) presents results from studies on two different conceptual domains: the lexical category *colour* and the grammatical category *number*. Neither of these represents concepts that are entirely new to the learners, but they are organized differently in the languages in question. Speakers of L1 Greek distinguish between two shades of blue where English only has one, and speakers of L1 Japanese base obligatory number marking solely on the feature [+animate], where English relies on [+animate, +discrete]. For both of these categories, the results indicate that advanced L2 learners are able to restructure their conceptualization in the direction of the target language and that there are intermediate stages where learner behaviour does not conform with that of monolinguals of either the L1 or the L2.

Von Stutterheim and colleagues have conducted several studies (Stutterheim 2003, Stutterheim and Carroll 2006, Schmiedtová, Stutterheim, and Carroll 2011) on L1 and L2 aspectual distinctions, using film clips and eye-tracking equipment to measure the subjects' focus on processes and end points, based on a branch of the TFS hypothesis they call *seeing for speaking* (Schmiedtová, Stutterheim, and Carroll 2011: 67). The L2 data shows that L1 German speakers of L2 English focus on processes rather than end points, almost on a par with L1 English speakers and in contrast to monolingual Germans. However, there was no sign of restructuring in the opposite direction. There may be several explanations for this. Pavlenko (2011a: 251) suggests that an increased focus on end points in L2 German might be harder to achieve than to downplay the same feature in L2 English. Moreover, the researchers point to the formal encoding of processes in the highly salient English progressive as opposed to "the holistic perspective in German" (Schmiedtová, Stutterheim, and Carroll 2011: 94-95, cf. section 3.4.1 of the present work). These studies also included L1 Norwegian data, with similar results as for L1 German. It seems that Norwegian learners of English would therefore have to go through a similar restructuring to achieve target-like mastery of the progressive. The question is, what type of is restructuring is required; the adoption of a new concept or a modification of an already-existing one? At first glance, the fact that there is no grammaticized, obligatory

progressive aspect in Norwegian suggests that learners must adopt an entirely new concept; in addition to the tense distinctions they are already familiar with in their L1, they must learn to make a decision about a situation's aspectual contour for each finite verb phrase. In other words, they must add a feature they do not normally conceptualize. Another way of looking at it is to see the concepts formalized by the English simple and progressive forms as two sides of a single conceptualization, which in Norwegian are both channelled through the same finite verb form. The latter option is similar to the distinction speakers of English must learn when they find that English *know* corresponds to both *conocer* and *saber* in Spanish (cf. section 2.2.7.1), a type of restructuring I choose to call a *conceptual split*. Concepts that are originally similar enough to appear as one, must now be reconceptualised into two that are mutually exclusive, both formally and functionally. Either way, this type of restructuring is proposed to lie on top of the hierarchy of difficulty for language learning theorized as early as the mid-1960s (Stockwell, Bowen, and Martin 1965: ch. 11).

On closer scrutiny, however, learners are not unfamiliar with this distinction, as the Norwegian language already contains productive lexical constructions that fill the same functions as the progressive, e.g. posture verb constructions such as *sitter og leser* 'sits and reads'. According to Tonne (2007), these are mainly used to disambiguate clauses where the aspectual meaning is unclear (cf. section 3.3.4). I will hold that Norwegian learners do not need to learn a new concept so much as to reorganize the distribution and prominence of an already-known distinction, though such a task may certainly be challenging enough. In other words, a known distinction needs to be automatized and, not least, usage must rely on correct contextual distribution, as will be discussed in the next section.

Pavlenko (2011a: 248-251) identifies six predictors of conceptual restructuring: age, context, length of exposure, proficiency, frequency of use, and type of required adjustment. The first of these brings us back to Slobin's claim that TFS patterns acquired in childhood are difficult to shake for adult L2 learners. This begs the question of how resilient these patterns are in childhood learners, whether the L2 is a second or foreign language. Jarvis and Pavlenko (2008: 154) choose to not even deal with this problem, as it opens up a whole other can of worms related to age and maturity. I shall not go into this discussion here (but see sections 2.2.3 and 2.2.4), only point to the age-related changes mentioned above; the learners in my project are well within the proposed age-span for TFS learning at the onset of their L2 learning and the question – to be explored in my thesis – is whether this and the other factors suggested by Pavlenko have a strong enough impact to lead to conceptual restructuring, as evidenced by the development of target-like use of the progressive over time.

2.3.3 Thinking for writing

It is one thing to learn the meaning of a form and to incorporate it into one's inventory of regularly and automatically employed grammatical features; it is quite another to fully grasp the range of contexts where the form may successfully be applied. The use of the English progressive varies considerably with context and, not least, genre. To use Whorf's terms (1956: 105), it is now time to consider the *cryptotype*, how the form is distributed, not just the *phenotype*, the overt semantic meaning. Larsen-Freeman (2003) makes a similar distinction when she points out that learners need to obtain knowledge about both meaning (semantics) and use (pragmatics) of a form. Without this knowledge, L2 learners risk using this construction in a manner that is formally and semantically correct, but which strikes native speakers as unconventional or odd, as Axelsson and Hahn (2001) have observed in their study of advanced Swedish and German learners of L2 English.

When writing the Frog Stories, learners are asked to apply their knowledge of English to a very specific genre; the written narrative. In doing so, they must not only use the English language correctly, to the best of their ability, they must also adhere to the conventions of this genre. One of these conventions is that a story is predominantly anchored in the simple tense and the progressive is used "with a more global, plot-based motivation" (Berman and Slobin 1994: 142, see also e.g. Andersen and Shirai 1994, Bardovi-Harlig 1998, Bardovi-Harlig 2000). Moreover, the frequency of the progressive varies considerably with genre, both between written and spoken language, and within written genres: Smith gives a range from 1% of all verb phrases in the written genre "learned and scientific texts", to 9.5% in the spoken genre "scripted television drama" (2002: 320). Slobin's data, on the other hand, show figures as high as 17% in adult present tense spoken narratives and considerably higher in the younger age groups. Similar observations are found in Biber (1999: 161-162) and Halverson (2007: 189): the frequencies are consistently higher in fiction than in non-fiction and higher in spoken than written corpora. Durst-Andersen (2000) attributes such differences to the concrete, descriptive nature of the progressive, as opposed to the more abstract, ideational simple tense; a view that is also reported in Axelsson and Hahn (2001: 7), based on findings from an unpublished graduate paper (Blomberg 2001).

According to their teachers, the youngest L2 subjects in my study have mainly been both taught and exposed to spoken language throughout their learning period; in contrast, their experience with and exploration of written texts is of a more recent date, as well as more limited. It is therefore to be expected that their written language will to some extent rely on their

knowledge of spoken English. To this may be added their developing narrative skills, regardless of language. Kellerman (1997: 286-287) reports results from an undergraduate study of L1 Dutch learners of L2 English, which shows a simultaneous development of narrative skills in L1 and L2 production. This is in line with evidence for the linguistic interdependence hypothesis (see section 2.2.4) reported in McLaughlin (1985: 9), and may thus be a form of L1 transfer, as Kellerman points out.

Another element to consider when it comes to spoken versus written expression, concerns the degree of *on-line thinking* that is so important for the TFS hypothesis. Strömqvist et al. (2004) point to various elements that differ in the spoken and written production of the Frog Stories, such as degree of contact between sender and receiver, degree of opportunity to structure and edit production, flow of discourse, use of cohesive devices, production rate, amount of attention to the pictures during text production, etc. All of these lead to greater constraints on on-line thinking in spoken than written production. The authors support the view that early written language is influenced by spoken language and, based on results from their study, they conclude that their youngest group (age 9) largely seem to be thinking-for-speaking in their written production, whereas their 15-year-olds and adults develop a style more specific to literary text. This is evidenced not only by the nature of their texts (end result), but also in their planning strategies and editing (process).

Strömqvist et al. do not discuss the role of writing tools, but Jensen, for one, has looked at the difference between handwritten and computer-written texts and tentatively finds that results from his study "support [his] hypothesis that texts written on a computer share properties with spontaneous, unplanned language, like prototypical speech" (2008: 179-180). However, Strömqvist et al.'s study does show development from typical thinking-for-speaking in both handwritten and computer-written texts by nine-year-olds to typical thinking-for-writing in exclusively computer-written texts by 15-year-olds and adults. The maturational factor thus seems to have greater influence than writing tools.

2.3.4 From Whorf to where?

The usefulness of linguistic relativity does not hinge on a complete understanding of, or agreement with, Whorf; this would seem to be an impossible achievement. Rather, Whorf's writings, as well as those of the scholars that inspired him, may be taken as a starting point for more succinct theoretical models – such as thinking for speaking – and methodologically rigorous research, e.g. in the tradition of von Stutterheim and her associates.

The above discussion has shown that the habitual selection of grammatical patterns may carry over, not just from one language to another, but also across registers within a language. The task of a language learner is therefore not to learn and automatically produce just *one* distributional pattern, but to acquire an understanding of which one of an array of patterns is appropriate for a particular context or genre. This ability does not only have to do with L2 proficiency, but also with cognitive and maturational development. The English progressive is an overt and salient category as regards form and meaning, but its distribution belongs to the category of covert systems that interested Whorf so much. It is therefore a construction worth examining from the point of view of linguistic relativity as well as L2 acquisition, and the ideas developed and explored in the tradition of Slobin's thinking for speaking seem a good basis for discussing the results of the present study.

2.4 Chapter summary

In the present chapter I have presented theories of language acquisition that are considered relevant to this study. This section sum ups this presentation and explains the relevance of the topics discussed.

A major issue in second language acquisition research is whether first and second language acquisition are similar or different processes, as measured by product, developmental paths, strategies, or all of these. The issue is far from resolved and largely depends on how great the differences or similarities must be to allow one to take one position or the other, as well as on the researcher's theoretical stance; that there *are* both differences and similarities should be fairly evident. The view adopted in the present work is that the similarities are great enough that insight from L1 research will provide valuable information also for studies of SLA. As the notion of the child as a *tabula rasa* has been abandoned, we find that children are born with the capacity for learning language. Some will have it that this is due to a specific Language Acquisition Device, while others attribute it to more general cognitive abilities. In support of the latter view, we have seen how seen how linguistic and cognitive development go hand in hand and how this is related to the need to communicate and to the act of communication itself (Gopnik 2001, Tomasello 2003a). Theories about language are constantly formed and revised and language learning is therefore seen as a dynamic process; language is learned as it is being used and will always be subject to change, to a greater or lesser extent. Presumably, these general cognitive abilities are something L1 and L2 learners have in common and rely on in their learning process.

Where then, do the two types of learning part ways? While L1 acquisition is by no means a straightforward procedure, SLA research is made dauntingly complex by all the factors that may, or even must, be considered and the lack of clear-cut categories and definitions. First language learners almost universally have the same basic learning conditions: they are exposed to language daily and from birth, learn the language informally, and simultaneously have to learn both the language itself and *what a language is*. In contrast, L2 learners may start learning a new language at any age, at any cognitive level, and with any amount of L1 knowledge as linguistic ballast. In addition, the amount and form of input and instruction they receive vary greatly. All this makes L2 learners so heterogeneous that it is difficult to generalize results from various studies. The L2 subjects in the present study are presumably representative of Norwegian learners of English, who all go through the same training based on the same curriculum. They are not, however, representative of all L2 learners, not even of all learners of English as a second language (ESL). For one thing, they do not fit into the most extensively studied category of learners: adults who start learning English as immigrants to an English-speaking country. The fact that they started learning English as early as age six may have consequences for their L2 development as well as for ultimate attainment, although this age is not the age of *significant exposure,* which is sometimes seen as the only valid starting point. This brings us to a another fuzzy category: Though they must be considered learners of English as a foreign, rather than second, language, their exposure to particularly spoken English is greater than is common for most foreign language learners (see section 1.3). Much of their learning will therefore be naturalistic rather than formal, but chances are they will have a much greater passive than active knowledge of English. In short, the L2 learners in this study are somewhere between the prototypical L1 and L2 learners.

As already pointed out, one of the key differences between L1 and L2 learners is that the L2 learners already have a well-developed linguistic system in place. A major discussion in this chapter has been the relevance of this prior knowledge; if and how any influence from it can be detected in the learners' interlanguage. One important methodological consideration is how this interlanguage differs from L1 usage, and as we have looked at how *cognitive maturity* might be an influential variable, this study seeks to control for this influence by comparing L2 speakers to L1 speakers of the same age. We have seen that interlanguage is dynamic in nature, just as the L1, and a look at both L1 and L2 groups at two points in time will allow us to consider whether IL development in any way coincides with L1 development or if L1 influence is a greater factor.

The (at least formerly) more common term *transfer* is now more and more replaced by *L1 influence*, which seems to have a much wider scope. The above discussion has shown that both obvious learner mistakes and more systematic, but at first glance inconspicuous, learner behaviour may fall under this umbrella and that it is often hard to distinguish L1 influence from more universal developmental paths; the two may in fact in many cases work together. In section 2.2.7.5, I asked the question of how great L1 influence must be for it to have any relevance for theoretical or applied linguistics, a question that I shall in part seek to answer in this analysis of the English progressive; a construction that has no obvious counterpart in Norwegian.

Finally, section 2.3 has dealt with some important psychological explanations for both L1 and L2 language use, where Slobin's thinking for speaking is seen as a good explanation for the difficulties that learners meet in acquiring linguistic patterns – as well as the linguistic items that do not pose much of a challenge. It is argued that Slobin's theory is relevant for a study of the progressive, as the contextual distribution may be as difficult to grasp as the semantics of the construction, if not more.

In short, this chapter has presented theoretical and empirical research to support the view that much of the difference between L1 and L2 learning lies in the more advanced cognitive abilities of L2 learners (these differ with *age of task*) as theorized in the framework of Cognitive Linguistics. With age come greater cognitive abilities, but also stronger links to language, mainly the L1, which becomes more and more entrenched. The processes in the two forms of learning are therefore similar. Language learning builds on, or is in exchange with, other cognitive faculties, but in L2 it both draws upon and conflicts with existing knowledge and patterns, and this may or may not result in assessable L1 influence. This interplay between age, cognition and language learning makes L2 learning a particularly complex object of research when the learners are still so young that they have not yet fully grasped the range of conventions of their first language.

3 THE ENGLISH PROGRESSIVE AND RELATED CONSTRUCTIONS

"…it is not encouraging for the working linguist when even in the best-studied language of the world, such as salient phenomenon like the -ing-*form is not really understood."*

Klein (2009: 54, errors in original)

The main focus of this chapter is on the English progressive construction, but as preliminary findings during the coding process (see section 4.8.2) suggest that other uses of the *-ing* participle also play a role in the acquisition of the progressive, these other uses will also be considered, in line with the partly data-driven approach described in section 1.5. The first part of the chapter, section 3.1, concerns a general understanding of categories that are central to the meaning and use of the progressive. Notions under discussion are the relation between time, tense and aspect; the relation between form and meaning; and semantic, or lexical, aspect. Next, section 3.2 gives relevant theoretical approaches to the construction as a whole and its interaction with lexical aspect, mainly from a Cognitive Linguistic perspective, while section 3.3 deals with constructions that are related to the progressive in form and/or meaning; these include other uses of the English *-ing* form and Norwegian constructions that are formally and/or functionally similar to the progressive and thus represent potential sources of transfer (cf. section 2.2.7). In section 3.4, the progressive is treated from the perspective of second language acquisition; this discussion includes both findings from previous studies and various scholars' attempts at explaining the learning process as regards this construction. Finally, section 3.5 outlines the approach adopted in the present study, based on the information presented in the previous sections of the chapter. In this chapter, the categories *tense* and *lexical aspect* are given much attention – both from a learning perspective and in general – because of their roles in determining the quantitative patterns of the progressive aspect, in native-speaker as well as L2 language. The discussions below also bear on the way the analysis in chapter 5 is organized and carried out, as an extensive discussion of my theoretical stance is a prerequisite for this analysis. As the form of the progressive is the least complex part of this construction, the intricacies and challenges of its meaning and use will receive the most attention.

Nonetheless, it should always be remembered that form is used as a starting point in this study (see 3.1.2 below).

The English progressive construction may be approached from different angles, depending on the aim of the study and the theoretical stance of the researcher. As has already been established (sections 1.4 and 2.1.4), the present study relies on theories of Cognitive Linguistics (CL), in which a crucial tenet is to view any linguistic unit – from small items such as phonemes to constructions as large as sentence schemas – as a symbolic unit. Taylor defines this as "the conventionalized association of a phonological structure with a semantic structure" (2002: 25). Under other theoretical frameworks, these two poles – the phonetic and the semantic – are often treated separately, where CL views them as an inseparable whole. Embracing this view means treating the progressive construction as a meaningful unit, where both form and function must be considered together. Still, it can be fruitful to use one or the other as a starting point. Part of the background for the present study is both observed and reported overuse of form and the object is to search for the development of a system in learner usage, which includes reasons for this overuse as well as the patterns of use and non-use defined by a given set of criteria (see research questions and hypotheses in section 3.5 below). However, for all the problems it may pose to learners (see section 3.4.1), the form of the progressive aspect is the least challenging; it is clearly defined and delimited: The progressive construction "consists of the auxiliary BE + the *-ing* participle of a verb" (Quirk et al. 1985: 151). It can be used in combination with any tense, voice or modal marking[30] and is therefore often described in contrast to the *nonprogressive* (e.g. Quirk et al. 1985, Williams 2002, Radden and Dirven 2007, Niemeier and Reif 2008). In other words, when selecting a finite verb form, the language user always has to decide whether to use the progressive or the nonprogressive, as in the following examples:

(1) Tom reads.
(2) Tom is reading.
(3) Anna has eaten.
(4) Anna has been eating.
(5) Will you come to the party?
(6) Will you be coming to the party?

[30] A notable exception is the imperative mood, which is incompatible with the progressive. Semantically, this is well motivated: the progressive marks the situation as ongoing, i.e. already in progress, whereas the imperative usually is a command to initiate a situation.

In (1) and (2), the choice of aspect is illustrated for the present tense, while (3) and (4) show use of aspect in the perfect construction, and an aspectual distinction with a modal auxiliary is presented in (5) and (6)[31]. It is this contrast between progressive and nonprogressive aspect that is investigated in the present work and thus this dichotomy will be used throughout. It is important to note, however, that the progressive is mainly used in the past or present tense and therefore most readily contrasts with the simple past or present[32].

3.1 General considerations

This section considers the larger context of the progressive and attempts to place it in relation to other temporal concepts and categories, including tense and lexical aspect, which are used as independent variables in the analysis in chapter 5. These categories are so important to the present study that potentially ambiguous terms must be clarified, and delimitation and meaning thoroughly understood. In addition, the important distinction between form and function is discussed, in section 3.1.2, as an understanding of how these two relate has consequences for how an analysis may be carried out.

3.1.1 Time, tense and aspect

As an introduction to the temporal progressive construction, I shall address the much-debated question of the relation between time, tense and aspect. This section offers a non-exhaustive and somewhat simplified presentation of some of the principal temporal categories dealt with in the present work and is meant to serve as a background for a discussion of how the progressive aspect is acquired, rather than as a theoretical contribution in itself. Most importantly, this outline defines and delimits the present author's understanding and use of these categories for the purposes of this project.

The first thing that must be made clear, is that time in itself is not a grammatical category. Obvious as this may seem, it is crucial that we distinguish between time itself and the linguistic means we have at our disposal to categorize it, as these means are neither universal nor employed in a universal manner. To my knowledge, all languages have some sort of time reference; Klein identifies "six types of devices that are regularly used to encode time in language" (2009: 40), these are *tense, aspect, aktionsart* (i.e. lexical aspect, which we will get back to in section 3.1.3)*, temporal adverbials, temporal particles* and *discourse principles*.

[31] Naturally, these formal distinctions represent differences in meaning that will not be discussed at this point.

[32] See e.g. Smith (2002) for an overview of the distribution of progressive forms in written corpora.

However, not all languages have the grammatical categories tense (e.g. Chinese) or aspect (e.g. Norwegian)[33], which will be the primary focus here. Although grammatical aspect is the topic of this study, a discussion of aspect must include some mention of tense as they are both verbal markings of time and often share inflectional form, or are at least mutually dependent in creating a grammatical construction[34]. The outline presented here mainly relies on Comrie (1976, 1985) and Klein (2009) and only deals with information relevant to the present project; issues specific to languages other than English and Norwegian are not considered.

Klein (2009: 39) distinguishes between three levels in his analysis: the *situation*, i.e. what the utterance refers to; the *description* of the situation, realized by the non-finite parts of the sentence; and the *marking of how the situation is positioned in time*, which encompasses all possible time encodings listed above. It is the latter level that is of interest here. As Klein points out, English normally requires time marking in any description of a situation, since finite clauses must be marked for tense[35] (ibid.). Scholarly accounts of the relation between time and tense are abundant, with Reichenbach's (1947) *Elements of symbolic logic* as the perhaps most well-known of these. They all seem to agree on the basic notion that the function of tense is to structure moments in time in relation to each other. Whereas typologically distant languages may or may not express radically different conceptions of time, as e.g. Whorf (1956) claimed, English and related languages seem to agree on the concept of time as progressing along a line. The present moment, which would then coincide with the present tense in what Comrie (1985) terms *absolute tense,* is usually placed at the centre of this line, with the past (and past tense) to the left of it and the future (and future tense) to the right, as seen in Figure 3.1.1:

Figure 3.1.1: Illustration of linear temporal conception.

[33] Whether the perfect construction, which is found in Norwegian as well, should be considered an aspectual category is debatable; see e.g. Comrie (1976: 6), Klein (2009: 53-54), and Huddleston and Pullum (2005: 43f). The latter explicitly consider the perfect a tense category.

[34] Hence the tendency to conflate these grammatical categories for practical purposes, under the common term "tense-aspect morphology" (e.g. Bardovi-Harlig 2000, Rocca 2007), as will often be done throughout this work.

[35] Again, we find an exception in the imperative, and again this may be said to be semantically motivated: the imperative is used to make a command at the moment of utterance, which implies the present. Tense marking would therefore be redundant, as a past tense interpretation is logically impossible.

Tense is a deictic device, which orders situations along this line; in the absolute sense, with the present moment – which Klein (ibid.: 43) terms *time of utterance* (TU) – as the reference point. All situations are seen as coinciding with, or taking place before or after, TU. It is, however, well known that tense is not only used in the absolute sense, but also with other moments of time as the reference point, to form what Comrie calls *relative tense*. An extensive outline of the effects of relative tense is beyond the scope of this thesis; suffice it to say that in Comrie's framework, the function of tense is still to organize situations relative to each other along a timeline. Klein problematizes the function of tense in many ways but in effect agrees with Comrie that tense serves to anchor the time of the situation, which he calls *topic time*, to a reference point, which may or may not be TU. He does stress, however, that the time specified by means of tense need not be punctual; it may as well indicate a time *span*, as in *Lisa had a cat when she was little.* As we shall see, it is the role of *aspect* to provide this kind of information.

At this point, it must be made clear how tense is to be approached by the present author. Klein (ibid.: 43) rightly points out that the term "tense" may have several readings and that this may lead to confusion. He distinguishes between tense as a category, i.e. the entire tense *system*; tense as a form, i.e. the grammatical marking; and the function or semantics of tense, i.e. the expression of pastness, presentness and futurity. While all these are valid interpretations, they are each suited for different approaches to linguistic analysis. A form-based approach such as the present one will benefit most from a strictly formal definition of tense, which only allows for the morphologically marked tenses. Following e.g. Langacker (2001) and Smith (1997) – but contrary to Radden and Dirven (2007) – I will only operate with two tenses in English, past and present, to the exclusion of future meaning, which can be expressed in many ways, none of which exclusively deals with futurity: these include the future present and various modal expressions, hereunder *be going to*, which will receive separate attention only because of its use of the *-ing* participle. The label "tense" will mainly be used to refer to the two English tenses and the system they comprise, and the analysis of tense in chapter 5 is strictly based on this interpretation.

Now that we have established that tense anchors situations in time and in relation to each other, we may move on to an attempt to explain the main issue at hand: *aspect*. Dealing with the label "aspect", we face similar terminological issues as with tense: the term can be used to denote the grammatical category aspect (also called viewpoint aspect), regardless of language-specific use; a particular aspect in a specific language; aspectual meaning (as opposed to grammatical form); or semantic aspect (lexical aspect), to name a few. The analysis in chapter

5 deals specifically with the English progressive aspect and includes its relation to lexical aspect. The discussion in this section, however, is on the grammatical category aspect and how it relates to time and tense.

Unlike tense, aspect is not a deictic device, but it does tell us something about the temporal structure of a situation. Although there are several different ways of subdividing aspect in the aspectual systems of various languages, the main distinction seems to be between *perfective* and *imperfective* aspect. Bear in mind that this is a semantic distinction which relates differently to different formal realizations in the individual languages. The perfective aspect – which must not be confused with the *perfect* construction – lets the language user view a situation as *complete*, or as a whole. In other words, the beginning, middle and end of the situation are seen as one, with no more emphasis on one of these constituent parts than the others, and without regard to the internal structure of the situation. This is not to say that there is no such structure; as Comrie puts it, "perfectivity involves lack of explicit reference to the internal temporal constituency of a situation, rather than explicitly implying the lack of such internal temporal constituency" (1976: 21). The imperfective, on the other hand, specifically highlights this internal temporal constituency; a situation is seen "from the inside", so to speak, without explicit reference to the beginning or the end of a situation. Again, the lack of explicit reference does not mean that the situation does not have a beginning or an end; they are just not the focus of attention.

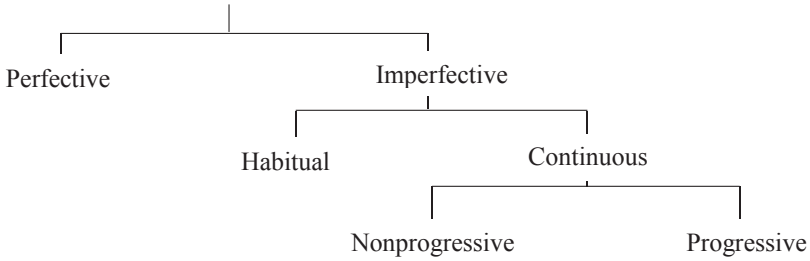

Figure 3.1.2: Comrie's classification of aspectual oppositions (1976: 25).

This inside perspective gives room for a more fine-grained and complex focus for the imperfective than for the perfective, as evidenced by the many variations over this theme that are found both within and across languages: While perfective aspect seems to be a uniform category, Comrie presents a division of the imperfective into the *habitual* and *continuous* aspects, where the continuous is further divided into the *nonprogressive* and the *progressive*,

as seen in Figure 3.1.2 above (taken from Comrie 1976: 25). It is perfectly acceptable for one and the same language to make use of several variants of the imperfective; one example that Comrie cites is Spanish, which has grammaticized both a general imperfective and a progressive aspect, where the two readily combine. Since they are not mutually exclusive – the progressive is rather used to specify a possible reading of the imperfective, as in *Juan estaba llegando* 'John was arriving' (Comrie 1976: 25) – we must take this as evidence that they serve different functions.

Now that the most basic aspectual differences have been sketched out, it is time to consider how these schematic aspectual oppositions are realized grammatically in individual languages. Examples from French and Norwegian are used here to contrast with the meaning differences expressed by aspect in English, insofar as this is relevant to understanding the English progressive. Leaving aside the perfect, which is of little interest for the present purposes both because of its dubitable aspectual status (see e.g. Comrie 1976: 6, Klein 2009: 53-54) and, more importantly, because it will not feature in the analysis part of this work, the one thing that is generally agreed about aspect in English is that this language encodes a grammatical progressive aspect and that it contrasts with the nonprogressive. The nature of the progressive will receive separate attention in the next sections, but since it will be compared to the nonprogressive, it is necessary to examine what this contrast consists in. The first question to ask is, if the progressive is imperfective, does it follow that the nonprogressive is perfective? Or to put it differently, is the perfective/imperfective dichotomy required in a language that makes obligatory aspectual distinctions, or can the opposition take place solely within the imperfective paradigm, as Comrie's classification in Figure 3.1.2 seems to indicate? In the case of English, there seems to be considerable confusion. Quirk et al. (1985), for instance, are among the many who conflate the perfect and the perfective. C. Smith (1997), on the other hand, claims that the nonprogressive is perfective and the progressive imperfective – a view that runs counter to Comrie's outline. We have already seen that the progressive is a subcategory of imperfective aspect, but following Comrie's line of division, the nonprogressive is also an imperfective which together with the progressive makes up the two forms of the *continuous* aspect, which in turn contrasts with the *habitual* (1976: 25). To try to sort out some of this confusion, let us consider some examples, first from French:

(7) a *Elle dansa*$_{\text{PST.PFV}}$ *lentement*. 'She danced slowly.'
b *Elle dansait*$_{\text{PST.IPFV}}$ *lentement*. 'She danced/was dancing slowly.'

The sentences in (7) both indicate a situation where the act of dancing took place in an unspecified time frame. In French, this situation may be seen as complete (perhaps describing just one dance) by using the perfective form *passé simple* or as incomplete by means of the imperfective *imparfait*. In English, a similar contrast may – but must not – be expressed by the use of the simple past and the past progressive. This should indicate that there is indeed a perfective/imperfective opposition in English, where the perfective is expressed by the nonprogressive (and not the perfect construction). If so, Comrie's classification does not fully cover the English aspectual contrast. However, if we look at the same situation in the present tense, we find that French has not formalized this opposition, as in (8), whereas English still retains the progressive/nonprogressive contrast; the one form in French may therefore be translated into either of the English constructions:

(8) *Elle danse*$_{\text{PRS}}$ *lentement*. 'She dances/is dancing slowly.'

To once again quote Comrie: "Since the present tense is essentially used to describe, rather than to narrate, *it is essentially imperfective*, either continuous or habitual, and not perfective" (1976: 66, my italics). In languages that do not have overt aspectual distinctions in the present tense, this tense may certainly take on perfective meaning, for instance when it is used with future meaning, but the default (absolute tense) interpretation is imperfective. Without contextual cues, sentence (8) may be read as either habitual or continuous. Another example, this time from Norwegian, demonstrates the same properties of the present tense:

(9) *Du synger*$_{\text{PRS}}$ *så fint*. 'You sing/are singing so beautifully.'

This expression of admiration can be used to refer to the present, ongoing situation (the rudeness of the interruption notwithstanding) or to the general fact that the singer sings beautifully on any given occasion; these two interpretations must be given separate forms in English. Thus, the perfective/imperfective contrast in English seems to be a matter of tense rather than aspect: the progressive contrasts with the simple present *within* the imperfective category, but highlights a perfective/imperfective opposition when held up against the simple past. As we shall return to later on in dealing with the Aspect Hypothesis (section 3.4.2), both L1 and L2 learners clearly associate perfective situations with past tense/perfective morphology and imperfective situations with present tense/imperfective morphology.

Example (10) renders the situation described in (9) in the past tense, where it can mean either that the singer sang beautifully on a specific occasion, let's say yesterday at a concert, or used to do it habitually, for instance when s/he was a child. The first interpretation offers a complete (perfective) view of the situation given the use of the past tense, but does not exclude an imperfective reading. Both of these possible readings may be rendered in the simple past in English, or one could distinguish them by using the explicitly imperfective progressive aspect, or even an explicit habitual construction; *You used to sing so beautifully*.

(10) *Du sang*$_{\text{PST}}$ *så fint*. 'You sang/were singing so beautifully.'

The above discussion points to a neutral understanding of the English nonprogressive, at least in the simple forms[36], where tense is the critical factor in giving it a perfective or imperfective reading. Slobin (1996: 79) also points to a default value based on the lexical meaning of the verb (cf. the discussions on lexical aspect in this chapter). A perfective aspect as such, however, is not formalized in the grammatical inventory of the English language; neither is, for that matter, a general, all-encompassing imperfective. The progressive is simply contrasted with the *non*progressive, which thus seems to be quite appropriately named.

To sum up: The English language has a tense/aspect system that is used to anchor situations in time, both relative to each other and to the time of utterance, and as regards the internal temporal structure of the situation. The formal tense markings are past and present and these may be used to express both absolute and relative tense, as well as combine with other elements to create future and modal constructions. Disregarding the perfect construction, the main aspectual distinction is between the progressive and the nonprogressive, where the latter may be seen as aspectually neutral. With all this in mind, we can move on to a discussion of the notions form, meaning and use, particularly as they relate to the English progressive.

3.1.2 Form versus function

In this section I shall try to clarify some issues regarding the form/function dichotomy in general, as well as the form/function pairing in regard to the English progressive.

One important distinction is that between form-based versus function-based approaches to the study of linguistics on the one hand, and the reliance on formal versus functional theories on the other. Bardovi-Harlig describes the first of these distinctions as follows:

[36] Other constructions, such as the perfect or modals, will add other properties, but are of little general interest here.

> Two main strands of inquiry can be distinguished: the investigation of the expression of semantic concepts through various linguistic devices and the investigation of the distribution of verbal morphology as an indicator of the underlying semantic system of interlanguage.
>
> (1999: 345)

The present work belongs to the latter category, but as this quote indicates, both approaches are concerned with the relation between semantic concepts and their formal realization(s). In Cognitive Linguistic terms, the difference between the two lies in which of the two "poles" of the symbolic unit is taken as a starting point; the semantic one or the phonological one (see e.g. Langacker 1987, Taylor 2002). Though the two approaches thus have much in common, they will inevitably lead to different methods and outcomes. To illustrate: A much-used function-based approach is the investigation of the semantically defined concept "past context" (e.g. Bardovi-Harlig 2000, Collins 2004a), where the question is which morphological forms are used, how this usage develops, how the forms correspond to semantic categories, etc. However, a strictly form-based approach would not just look at the same contexts from the opposite perspective; rather, this method would identify all conventional past-tense forms and investigate whether or not they are used in contexts with typical past-time meaning. Given the variability of language, especially developing learner interlanguage, and the general flexibility of usage, the contexts investigated in these two approaches would only partially overlap. In other words, they do not provide us with the exact same kind of information, but rather contribute to the whole picture from different perspectives and may thus be seen as complementary; both valuable in their own right. The choice of approach ultimately depends on the questions one seeks to answer, which in this case are, put simply, how and why the progressive *form* is used in Norwegian learner language.

The second dichotomy mentioned above is that between formal and functional theories of language. Adherence to formal theories does not automatically lead to a form-focussed approach, any more than function-based analyses must spring from functional theories. It does not lie within the scope of this work to provide an in-depth discussion of the contrast between these two major opposing perspectives on linguistics, but very broadly defined, formal theories consider language to be autonomous, formal systems, whereas functional theories adopt a more integrated view of form and meaning. Only this latter view will receive attention here.

In the present work, the English progressive aspect is considered from a Cognitive Linguistic point of view, where there is no strict dividing line between grammatical form and lexical meaning, or between grammatical and lexical constructions. As Goldberg points out, this is not to say that linguists should not operate with categories such as "grammar" and

"lexicon", only that the category boundaries are not clear and that while "[l]exical constructions and syntactic constructions differ in internal complexity, and also in the extent to which phonological form is specified" (1995: 7), they also share some basic properties: "both lexical and syntactic constructions are essentially the same type of declaratively represented data structure: both pair form with meaning" (ibid.).

Before moving on to the specific construction at issue here, let us review Goldberg's definition of a construction cited in section 2.1.4:

> C is a CONSTRUCTION iff$_{def}$ C is a form-meaning pair <F_i, S_i> such that some aspect of F, or some aspect of S, is not strictly predictable from C's component parts or from other previously established constructions.
>
> (1995: 4)

The crucial message here is that form and meaning – of the whole construction, not just of individual elements – make up a unit which differs from other constructions, although the construction in question may consist of elements that already have an established meaning.

With this definition in mind, it is also time to revisit the notion of *schematization*, in order to arrive at a fruitful description of the progressive within this framework. As noted previously, a schema is an abstraction over several instances of a linguistic unit, occurring on separate occasions. Schemata may have several *levels* of abstraction. This quote from Langacker brings the two concepts, schema and construction, together:

> [G]rammatical constructions are reasonably viewed as complex categories and represented in the form of schematic networks. A speaker's knowledge of [a complex] construction includes not only a high-level schema, but also subschemas, specific expressions, and categorizing relationships that associate these various structures.
>
> (1987: 410)

Applied to the English progressive aspect, the guidelines presented in the above quotes may yield the following analysis: At the highest-level schema, the progressive may be abstractly symbolized as

(11) (SUBJECT +) BE + V-*ing*

which at a low level could be realized as an instance of the progressive in the sentence in (12):

(12) *John is running.*

Between these levels we may imagine a number of different abstractions, e.g.

(13) PERSON + BE + V-*ing*
(14) PERSON + BE + $V_{ACTIVITY}$-*ing*
(15) PERSON + BE_{PRS} + $V_{ACTIVITY}$-*ing*
(16) PERSON + BE_{PRS} + V_{MOTION}-*ing*

In this non-exhaustive list of potential schemata for the progressive construction, based on just this one instance, the first example (13) shows a schema where the subject of the construction is restricted to humans. The schema in (14) specifies the type of verb that may be used in the construction, whereas (15) restricts the construction to the present tense. Finally, in (16), the type of verb is further narrowed down to those that indicate that the subject is in motion.

A schema is always based on more than one instance, but the above examples illustrate the path a construction may take towards higher and higher levels of schematization, going from the bottom to the top of this list. Each one of these steps could have been different if the point of departure were a different instance, e.g.

(17) *The bird was singing a song.*

In this case, the abstracted schemata might look something like this, again going from bottom to top:

(18) ANIMAL + BE + V-*ing*
(19) ANIMAL + BE + $V_{ACCOMPLISHMENT}$-*ing*
(20) ANIMAL + BE_{PST} + $V_{ACCOMPLISHMENT}$-*ing*
(21) ANIMAL + BE_{PST} + $V_{UTTERANCE}$-*ing*

From this set, the highest-level schema of the progressive is expanded to include: animals (18), accomplishment verbs (19), the past tense (20), and verbs of utterance (21). These two basic-level instances represent such different schemata that grouping them together would require yet another set of schemata, perhaps these:

(22) ANIMATE SUBJECT + BE + V-*ing*
(23) ANIMATE SUBJECT + BE + $V_{PROCESS}$-*ing*
(24) ANIMATE SUBJECT + BE_{TENSE} + $V_{PROCESS}$-*ing*
(25) ANIMATE SUBJECT + BE_{TENSE} + $V_{DYNAMIC}$-*ing*

Already this is starting to form a complex, hierarchical network of schemas, based on only two instances. Many more instances are usually needed to arrive at these levels of schematicity, but the above examples illustrate the complexity of a construction like the progressive. Going back to Tomasello's (2003a) theories presented in section 2.1.4, this kind of schematization may be

seen as a bottom-up process where all the elements that form the meaning of the progressive gradually combine into a construction that is meaningful in itself. Conversely, as the construction becomes entrenched in the mind of the language user, it can be involved in a top-down learning process, where the meaning of a new lexical verb can be partially inferred from its ability to occur in the progressive.

From a learning perspective, the complexity of a structure is challenging on several levels. It is one thing to arrive at an understanding of the form-function pairing of the progressive construction itself; it is yet another to piece the component parts together into one construction. The progressive is a periphrastic construction that consists of an auxiliary and a participle, the latter a complex construction in itself: the stem of a lexical verb coupled with the participial morpheme *-ing*. The learner must not only figure out the place of the participle in the progressive construction, s/he must also abstract a more general form/function schema or schematic network based on all the contexts it may occur in, including the progressive.

One final point must be made on the relation between form and function: While the competent language user masters both of these with ease, learners who still struggle with pairing the two do not always use them in a transparent manner. In the case of the progressive, as well as other complex verb phrases, learners may only display partial mastery of both form and function, and this will yield erroneous usage, particularly when it comes to the use of the auxiliary, which may be either left out or wrongly inflected. In such cases, the interpretation must rely on a combination of syntactic and morphological cues, as in *the owl flying over the boy* (informant 1129: girl, N11), where the bare participle functions as a finite lexical verb. An interpretation purely based on formal criteria would not identify this as the emergent progressive construction that this interlanguage version most likely is (see section 4.8.2.1).

3.1.3 Lexical aspect and aspectuality

This section presents the semantic category *lexical aspect,* already mentioned several times in the above sections, along with a short exploration of its relevance to the progressive. Although the German term *aktionsart* is a widely used synonym (e.g. Klein 2009), along with others such as *semantic aspect, inherent aspect*, lexical aspect will be used throughout this work, as it is the term that is most often connected with the Aspect Hypothesis (see section 3.4.2), which provides one of the most central explanations for the learning of tense-aspect morphology. Investigations based on this hypothesis commonly rely on Vendler's (1957, 1967) categories, and for the sake of comparability, not least, the present one will follow suit.

The semantic classification of lexical verbs stems from Aristotle's *kinesis* ("movement") and *energiai* ("actualities") (Dowty 1979: 52), but this basic idea has later been developed by several others, in Vendler resulting in his four-way distinction between *states, activities, accomplishments* and *achievements,* which he points out are all derived from time *schemata* (1957: 152). This is an important point: his categories are abstractions that harmonize well with some specific instances and less well with others, as his own discussions illustrate. As such, these abstractions fit well into the framework of Cognitive Linguistics, which recognizes that some items are more prototypical category members than others. He gives the following descriptions of how each of the categories is to be understood:

> For activities: "*A* was running at time *t*" means that time instant *t* is on *a* time stretch throughout which *A* was running.
> For accomplishments: "*A* was drawing a circle at *t*" means that *t* is on *the* time stretch in which *A* drew that circle.
> For achievements: "*A* won a race between t_1 and t_2" means that *the* time instant at which *A* won that race is between t_1 and t_2.
> For states: "*A* loved somebody from t_1 to t_2" means that at *any* instant between t_1 and t_2 *A* loved that person.
>
> (1957: 149, italics in original)

We see that activities and accomplishments both refer to stretches of time within which *the instant of reference* is found, but whereas any one stretch of time may represent the whole activity, accomplishments are restricted to one specific stretch of time. Similarly, states and achievements both refer to instants: states to *all* instants of a period of time (specified or not), represented arbitrarily by *any one* of them; achievements to one particular instant. From this we may gather that the classifications are based on the features "stretch of time/instant" and "specific/generic" and the categories represent combinations of these, tabularized as follows in Table 3.1.1:

Table 3.1.1: Vendler's categories organized by features.

	specific	**generic**
stretch of time	Accomplishment	activity
instant	Achievement	state

If this interpretation[38] is correct, then duration, which many associate with states, is in fact not the defining feature of this category – the property that Verkuyl considers "a natural aspectual tie between States and Activities" (1989: 71); it might be more appropriate to describe a state as a series of identical instants along a timeline whereas an achievement, often defined as a "change of state", is the moment when something goes from one state to another and the two are not identical. Activities and accomplishments, on the other hand, are used to denote stretches of time in a similar manner, i.e. respectively as a series of overlapping stretches of time and a single stretch where a natural end point marks the change of state.

With reference to the chief topic of this discussion, how grammatical aspect – and the progressive aspect in particular – is related to lexical aspect, one may now easily associate accomplishments and achievements with perfective aspect[39], as these are used to describe complete, specific situations. States and activities similarly align with imperfective aspect, since they are incomplete, but as we have already seen, the imperfective may have several subcategories, one of which is the progressive. Comrie's definition of progressiveness is "the combination of progressive meaning and nonstative meaning" (1976: 35). States may indeed be imperfective, as there is no indication of when the series of identical instants begins or ends, but the progressive aspect, like activities, draws attention to a stretch of time rather than an instant, and this explains why the two are highly compatible; progression can only apply to a stretch of time. On this background, the progressive must necessarily be nonstative, as a stretch of time cannot simultaneously be an instant.

Table 3.1.2: **Vendler's examples of "unambiguous cases".**

States	have, possess, desire or want something, like, dislike, love, hate, rule or dominate somebody or something, know or believe things
Activities	run, walk, swim, push or pull something
Accomplishments	paint a picture, make a chair, build a house, write or read a novel, deliver a sermon, give or attend a class, play a game of chess, grow up, recover from illness, get ready for something
Achievements	recognize, realize, spot and identify something, lose or find an object, reach the summit, win the race, cross the border, start, stop, and resume something, be born, die

[38] In line with Durst-Andersen (2000) and Langacker (2001), which we will get back to below; see also Verkuyl (1989: 44) for a similar tabulation, though he suggests different terms for these features.

[39] Here to be understood in the semantic sense, rather than grammaticalized into a specific form.

Vendler presents several examples of "almost unambiguous cases" of verb phrases[40] belonging to these categories (1957: 150), which are shown in tabular form above (Table 3.1.2). A list of unambiguous cases, however, makes one suspect that there are ambiguous ones, a suspicion that is corroborated by the hedging nature of the following quote: "There is a very large number of verbs that fall completely, or at least in their dominant use, within one of these categories" (1957: 150). Vendler refers to his categories as "conceptual tools" (ibid.) and specifically denies any claims to completeness; the categories encompass a number of verbs or predicates, but it is up to others to find if there are verb phrases that do not fit neatly into them. Subsequent accounts (e.g. Dowty 1979, Verkuyl 1989, Rothstein 2004) have shown that this is in fact the case. A blind adherence to the Vendler categories therefore makes quantitative analysis difficult and a framework that manages to squeeze all possible verb phrases into these four categories practically impossible. Some have, however, tried. An outline of these attempts would mean digressing to much from the topic at hand, but some of their contributions will be referred to in the next sections.

Criticism of Vendler's ideas may be grouped into two types. The first of these are objections as to how the categories are to be interpreted and at what level the interpretation must take place. Verkuyl (1989), in particular, has questioned the validity of bestowing aspectual readings onto single verbs or verb phrases and whether the analyses should be based on verb, phrase, sentence or discourse properties is an unresolved debate. This issue will be revisited in section 3.4.2.1.

More indirectly, others have suggested alternative semantic classifications that may be either distinct from Vendler's or adjustments to them. In his framework, Comrie distinguishes between states on the one hand, which, in a simplified definition, "continue as before unless changed" (1976: 13), and on the other hand dynamic situations that "require a continual input of energy if they are not to come to an end" (ibid.). Dynamic situations can be either processes, which view situations from within (imperfectively) or events, which view them as complete (perfectively). Comrie also introduces the category *semelfactive* (ibid.: 42): these are traditionally seen as verbs that are perceived to refer to single, punctual, dynamic situations, but do not involve a change of state and therefore do not readily group with achievements. Examples of these are *cough, kick, jump*. Rothstein (2004) sees semelfactives as a subcategory of activities, as she holds that they represent a minimal event of the latter and function as full activities if they are iterated; Comrie uses the terms *semelfactive* and *iterative* precisely to

[40] In this work, I shall follow convention and refer to lexical aspect as a property of the verb phrase, i.e. the predicate (see e.g. Bardovi-Harlig 2000: 215).

capture this duality, but does not attempt to group them under a common label. Other semantic dichotomies, also outlined by Comrie in the same work, are durative versus punctual, a distinction that simply refers to duration in time or the lack thereof; and telic versus atelic, where the contrast lies in whether or not a situation has a natural end point. An example would be *sing*, a situation which may go on indefinitely, as opposed to *sing a song*, which must naturally come to a conclusion when the last tone of the song is sung.

Croft (1998) operates with a three-way distinction much like Comrie's, but uses *events* where Comrie has *situations* and identifies the event types states, processes and achievements. He also recognizes the relevance of telicity and distinguishes activities (atelic) and accomplishments (telic) based on this feature. Andersen and Shirai (e.g. 1994) use Vendler's terms, but base them on the features ±*punctual,* ±*telic* and ±*dynamic*, where accomplishments and achievements are seen as durative and punctual *events* respectively. Robison (1995) also groups his categories along these three dichotomous dimensions, but he thus arrives at a six-fold classification of lexical aspect, adding the categories *punctual states* and *punctual activities*, which together with his *punctual events* form the group conventionally classified as achievements. Then there is Durst-Andersen (2000), who holds states and activities to be basic categories that describe *simple*, i.e. singular, situations, as opposed to *actions* that describe *complex*, i.e. two-part composite, situations.

Finally I will mention Langacker's basic division between imperfective and perfective verbs. Crucially, this distinction hinges on the verb's compatibility with the progressive: "The usual diagnostics for the classification are occurrence in the simple present tense (with actual present-time meaning) and occurrence in the progressive" (2001: 4). Langacker holds the perfective/imperfective distinction to be equivalent to what count/mass is for nouns, as perfective verbs, unlike imperfective ones, can be construed as bounded units. This distinction, among other things, will receive more attention as we consider how use of the progressive combines with lexical aspect in section 3.2.2.

Before specific use of either the progressive or its interaction with lexical aspect can be examined, however, it is useful to take a look at scholarly disagreement on the scope of lexical aspect. While there is general agreement that the use of grammatical aspect aligns with the semantics of the lexical verb, interpretations on a detailed level vary, not least when it comes to which features to include to arrive at a semantic classification. Does lexical aspect reside in the individual verb, the verb and its predicate, or in the larger context? Can the verb be classified in isolation, or must the verbal inflection also be considered? The composite aspectual meaning of tense, grammatical aspect and lexical aspect is covered by the label *aspectuality*, a term that

seems to have been introduced by Verkuyl (1993). As will be seen from some of the illustrating examples in this section, other sentence elements also contribute to this meaning, but these are somewhat downplayed here as they are not central to the present study. Several authors, notably Verkuyl, but also e.g. Dowty (1979), Rothstein (2004) and even Vendler himself, have pointed out that different contexts yield different interpretations of one and the same verb or verb phrase and discussions have ensued regarding the level at which lexical aspect should be assigned, as well as the general validity of the whole notion of lexical aspect. For detailed discussions on this topic, the reader is referred to the above-mentioned scholars, but some of the problematic issues will be sketched out here. Consider sentence (26):

(26) The girls were eating apples for an hour.

In this example, the past tense indicates a completed situation, but the progressive does not allow us to regard it as complete. In addition, the subject and object are both in the plural, which gives us less information on how the situation is restricted, but then again the subject is modified by the definite article *the*, which at least limits the number of girls, although we still do not know to how many, unless this is provided by the wider context. The object, however, refers to an indefinite, and thus incomplete, number of apples. Finally, the adverbial *for an hour* sets the temporal boundaries within which the situation takes place and in this sense gives a complete reading. How should (24) be classified in Vendlerian terms? *Eat an apple* is a much-cited example of an accomplishment and the composite reading points in the same direction, especially given the specific time frame of the adverbial[41]. But what about examples (27) and (28)?

(27) Girls are eating apples all the time.
(28) Girls eat apples.

Eat an apple is still an accomplishment, but the four incomplete/indefinite elements in (27) – subject, object, progressive aspect and adverbial – impose an activity reading on the proposition. Even without the adverbial and the progressive, the plural, indefinite subject and object in (28) suggest an habitual, imperfective interpretation and thus an activity or even a state if eating apples is seen as a quality of girls; a parallel to Vendler's example of "smoking"

[41] Here one may use one of the most common tests (see section 3.4.2.1), although these are normally reserved for verb phrases rather than entire clauses; *stop + -ing:* If the girls stop in the middle of eating apples for an hour, have they then eaten apples for an hour? The negative answer suggests an accomplishment, as "for an hour" already excludes an achievement reading.

(1957: 151). Even an achievement reading[42] of *eat an apple* is possible, though strange and unlikely, if the adverbial *in an instant* is added, as in (29).

(29) The girl ate an apple in an instant.

This kind of construal is crucial for interpreting the aspectuality of a proposition. In a Cognitive Linguistic framework, such a juggling of various elements certainly adds to the complexity of linguistic items, but it should not be seen as problematic for a consistent theory of language: As noted before (section 2.1.4), the abstract schemata of complex constructions and the lexical meaning of single items contribute to a *composite meaning* in a back-and-forth manner; single items add to the meaning of constructions and constructions give meaning to single items. As lexical items are in some ways more flexible than functional ones, especially in the sense that they allow for an unlimited number of category members, it is no wonder that the meaning of a complex construction should be able to steer the interpretation of a new category member of e.g. verbs in a certain direction or tweak the meaning of an already-existing one.

When we relate situations to time by means of language, we use lexical and grammatical categories as *conceptual tools* that allow us to *construe* the situations in terms of properties such as completeness, punctuality or progression, among other things; very short durations may thus be seen as punctual and the boundaries of bounded situations may be "edited out"[43]. If we accept the notion of conceptual tools, an idea that Vendler also supports as regards his classification (1957: 150), then we can also explore how they can be used in construals. Verkuyl makes a similar observation: "the distinction between aspectual classes is not a 'distinction inherent in what goes on' [(Galton 1984: 25)], but rather a distinction between the different ways we have of describing it" (1989: 89). We may say that the choice of conceptual tools depends on which part of the situation we choose to highlight, or *profile*, in Langackerian terms. With all this in mind, we can now turn to the chief topic at hand, the English progressive construction.

3.2 The English progressive

This section gives an outline of some scholarly accounts of the meaning and use of the progressive. As the primary goal of this study is to investigate how the progressive is *learned*, these theoretical accounts will not receive much attention. Such accounts mainly focus on both a 'core meaning' of the construction – if there is such a thing – and a broad spectrum of meaning

[42] Provided that punctuality is seen as a central feature of achievements, as many will argue (e.g. Andersen and Shirai 1994).
[43] See Klein (2009: 60-61) for a similar discussion.

in the language of adult native-speakers, which is not the target group here. Nevertheless, it is not fruitful to study how a construction is learned without some understanding of what target language usage consists in. The first part of this section presents several accounts of the range of meanings associated with the progressive, particularly within the framework of Cognitive Grammar. In the second part, the focus is more specifically on the interplay between lexical aspect and progressive/nonprogressive aspect in English; lexical aspect has been identified as one of the main explanations for how tense-aspect marking is learned (see section 3.4.2) and is therefore one of the independent variables in this study. Following Bielak and Pawlak (2013), then, usage that has little to do with *situation types* (see section 3.2.2 below) is not dwelled on.

3.2.1 General outline

Standard reference grammars ascribe a quite similar set of meanings to the progressive construction. Quirk et al. (1985: 198) identify three separate meaning components: the happening has *duration;* the duration is *limited;* and the happening is *not necessarily complete* – however, they do point out that "not all meanings need be present at a given instance" (ibid.). Their definition is in line with Biber et al., who see it as a means "to describe activities or events that are in progress at a particular time" and also point out that it usually denotes limited duration (1999: 470). Grammar books aimed at beginner's courses at university level convey more or less the same understanding of the progressive as well: Bækken (2006: 189) has the same focus on limited duration, while Huddleston and Pullum (2005: 52) focus on duration as opposed to punctuality, as well as the progressive as a *dynamic*, rather than static, category, as states do not progress. The latter also stress the imperfective interpretation of the progressive.

Few would object to the interpretations outlined above, but attempts have been made to add to our understanding of the progressive. Williams (2002) has written a monograph where he presents a novel hypothesis that aims to explain all uses of the progressive. When it comes to what he sees as "intrinsic features of progressive aspect in English", the list is recognizable from the grammars mentioned above:

> i) that a situation be deemed as being 'in progress';
> ii) that a situation be deemed as being in some way incomplete;
> iii) that any situation conveyed by using the progressive form implicitly contains a 'piece' of that same situation prior to the moment in which it is viewed as occurring.
>
> (Williams 2002: 50)

We find the same ideas of progress and incompletion, but in addition he finds it essential that the situation is already initiated; that a part of it takes place before the moment when we choose to focus on it. From these 'intrinsic features', he goes on to elaborate on the use of the progressive, which in his opinion can be summarized into his theory of 'susceptibility to change' (ibid.: 87ff). In using the progressive, Williams claims, the speaker wishes to stress the fact that the situation is not permanent, while the nonprogressive does not draw attention to this fact, whether there is a difference in permanence or not (ibid.: 87).

Another extensive work on the meaning and use of the progressive is Römer's (2005) empirical study of spoken-English corpora (see section 1.5). In her attempt to let the data guide her, rather than rely on previous theoretical accounts, she identifies two what she calls 'central functions of the progressive, along the parameters 'continuousness' and 'repeatedness'. The first central function is, not surprisingly, to refer to "continuous and non-repeated actions or events"; (ibid.: 111) this is the meaning that is reflected in most descriptions of this aspectual form. However, she also finds that a large number of progressives are both continuous and repeated (around 27-29% in the two corpora studied; p. 92); a finding that suggests that such use should receive more emphasis in reference works. In addition, Römer does not see future time reference as a separate function of the progressive, but rather as a feature that combines with both of her central functions (ibid.: 111); in this respect, she finds common ground with Williams (2002), who also sees the use of future progressives as an extended function of the core meaning.

In Cognitive Grammar, there also seems to be a need for a single schematic meaning or function of the progressive. Langacker (e.g. 1987, 1991, 2001, 2008b) boils this down to a device to *imperfectivize the perfective*. To get to this conclusion, he argues for a systematic analogy between verbs and nouns. In his account, he distinguishes between perfective and imperfective verbs, which he sees as analogous to count and mass nouns respectively. Just as "[t]he defining feature of count vs. mass nouns is whether or not the noun's referent, i.e. the thing it profiles, is construed as being bounded" (Langacker 2001: 4), verbs may be seen as referring to distinct, bounded, countable situations or to unbounded situations, as seen from the speaker's perspective. Langacker uses *water* as an example: this is a mass noun that refers to an indefinite number of indistinguishable units and no matter how a mass of water is divided, each part may be referred to as *water*; from the smallest drop to an ocean full of it. Thus every atomic unit represents the whole in a homogeneous manner. It is, however, possible to construe mass nouns, or the entities they refer to, as bounded units; consider for example *a drop of water, a glass of water* or names for bodies of water like *puddle, lake, ocean*. Conversely, count

nouns refer to entities where each part usually does not represent the whole in a homogeneous manner. For instance, if a laptop computer is disassembled, each part would not be identical; there would be a screen, keys from the keyboard, a battery, etc.

According to Langacker, verbs may similarly be construed as bounded or unbounded, perfective or imperfective, where the bounded ones are internally heterogeneous and the unbounded ones homogeneous. At this point, we may note that his distinction seems to correspond to the one between atelic states and activities on the one hand and telic accomplishments and achievements on the other[44]. However, as others before him, Langacker uses the ability to occur with the progressive as a diagnostic for identifying perfective verbs (2001: 6), and thus disregards lexical aspect as such in his classification. This is not entirely unproblematic; Comrie "give[s] the general definition of progressiveness as the combination of progressive meaning and nonstative meaning" (1976: 35), but notes the circularity of defining progressiveness in terms of stativity and at the same time using a verb's non-ability to occur in the progressive as a criterion for determining whether it is a state. This is further discussed in section 3.4.2.1. Langacker commits this fallacy when he defines his perfective/imperfective distinction this way and fails to distinguish clearly between verbs that *are* perfective and those that may function as such. Once this distinction is clarified, however, Langacker's classification seems valid: verbs may occur in the progressive only when they are *construed as bounded events*, and therefore appear to be perfective. States seem to resist this type of construal to a greater extent than other verb types, but as e.g. Croft (1998) demonstrates, any verb may be construed this way, given the right context (see section 3.2.2 below). In Langacker's view, then, the progressive serves to *imperfectivize the perfective,* as stated initially. It is therefore a somewhat complex process; a VP – or rather, the situation it refers to – must first be construed as essentially perfective, then as imperfective by means of the progressive.

This focus on bounded events goes well with a very basic description of the elements that make up the construction: it consists of a nominalized verb – the *-ing* participle – and a stative auxiliary, BE. The nominalization construes the verb situation as a countable[45] thing and thus bounded or perfective, and easy to visualize (cf. Durst-Andersen 2000: 84-85) and profile, whereas the much less salient auxiliary provides a stative, imperfectivizing background; according to Langacker, it serves to *retemporalize* the situation, after the nominalization has rendered it atemporal (1991: 210). It is important to stress here that bounded is not the same as

[44] We shall see later on, however, that this is not quite the case.

[45] What is countable is not the grammatical expression, but the episode itself.

complete: a situation may be perceived as bounded even if the boundaries are not within what Langacker calls the *immediate scope* of the viewing frame. In the case of the progressive, according to Langacker, there is a *maximum scope* where the boundaries are included and the immediate scope only selects an internal portion of it, in the same manner as mass nouns. And just as mass nouns can be construed as count nouns, e.g. *a glass of* water, so can many – if not most – verbs with a homogeneous structure, be construed as *bounded episodes* (2001: 6); they do not last very long at a time, relatively speaking. Examples include *sleep, sit, run, wear a tie*, i.e. both state and activity verbs. This is in line with Williams' (2002)main defining criterion for the progressive: susceptibility to change. If something is susceptible to change, then it must be possible to imagine an end point, a boundary, in the foreseeable future.

This section has given a brief outline of how the general meaning of progressive is understood in various reference works and theoretical frameworks. The use of the construction becomes more complex when verb semantics is fully factored in, as will be seen below.

3.2.2 The progressive and lexical aspect

Most accounts of the progressive acknowledge that this construction is used differently with different types of verb phrases, whether or not the variation is explained with reference to lexical aspect categories. The present discussion looks at ways verb phrases are classified, and how the categories interact with the English progressive. Cognitive Linguistic approaches are taken as a starting point, but others are also included, particularly since CL outlines do not entirely correspond to the Vendler categories used in this study (see section 3.1.3 above).

Before returning to the relation between the temporal-semantic properties of grammatical and lexical aspect, however, I will once again stress that time is not a grammatical category: all situations *have duration*, however imperceptible (as e.g. Croft 1998: 70, and Williams 2002: 73 also point out), as well as the structure *beginning-middle-end*, i.e. they are bounded, otherwise they would not exist in time. The only possible exception is existence itself; but even the unbounded existence of the universe is debatable. Existence is related to time, which makes time stative and, following Durst-Andersen (2000), we may take this as primary. Our linguistic representations of temporal relations are therefore a result of *construal*, as noted in section 3.1.3, and the linguistic items are used to *profile* certain parts of a situation, or even the situation as whole.

With this in mind, it is not difficult to see why scholars disagree on how to classify verb phrases. Croft points out what a complex cognitive process it is to "decid[e] which segment of a fragment of experience counts as an event", and that "[i]n terms of categorization and

cognition, they are hard to handle from the beginning" (1998: 68). As we have seen, Cognitive Grammar distinguishes between perfective and imperfective verbs in Langacker's framework, and that perfective verbs may take the progressive. Croft, on the other hand, relies on a three-way classification of event types that resembles Vendler's categories, except that activities and accomplishments are covered under the term 'processes':

(i) States, which do not involve change and are extended in time;
(ii) Processes, which do involve change and are extended in time;
(iii) Achievements, which involve change but are points (not extended in time).

(1998: 70)

Croft finds, along with most scholars, that states and processes differ in the form they must take to have a "true at this moment" meaning; states must be in the simple present and processes in the progressive. This analysis resonates well with Williams' (2002) 'susceptibility to change', since states do not involve change. Despite this widely acknowledged distinction, Croft goes on to demonstrate that both states and achievements – the latter typically not construed as extended in time – may still be used in the progressive with at "true at this moment" meaning, if these event types are given an unconventional construal: The difference between *He is nice* and *He is being nice* is that the latter event is seen as bounded; it may change at any time. Similarly, an unconventional construal of the event expressed with the verb *die,* in the progressive, focuses on the duration *before* the event, in what Croft terms *run-up achievements* (1998: 74). Another type of achievement, exemplified by the verb *flash*, is also given duration if it is repeated, as in *The light is flashing*. Croft calls this type *cyclic achievements* (ibid.).

With these, and many other, examples Croft shows what an important conceptual tool the progressive is in construing temporal events. In their course book *Cognitive English Grammar,* Radden and Dirven (2007) list *viewing frame* – realized by the choice of progressive or nonprogressive aspect – as the first of nine dimensions of construal. Their *maximal* and *restricted* viewing frames correspond to Langacker's (e.g. 2001) *maximum* and *immediate scope*, and are crucial to explaining English grammatical aspect. Where Croft chooses to use the term 'events', they prefer to talk about 'situations types', which is also the term used in Quirk et al. (1985: 177). Like Quirk et al., Radden and Dirven distinguish between states on the one hand, and events ('dynamic verbs' in Quirk et al.) on the other. Events are bounded (or perfective) within the maximal viewing frame, while states are not. Within the restricted viewing frame – that is, when the progressive is applied – both types appear to be imperfective, as also seen from Langacker's account. On this basis, Radden and Dirven present five pairs of situation types, where each pair is distinguished by the use of progressive/nonprogressive

aspect. In the case of events, the situation types are based on two criteria: *duration* and *telicity* (2007: 179). As telicity "refers to the inherently conclusive and definitive end-point of an event" (ibid.), we find that it is comparable to both Croft's 'change' and to the notion that an event is 'limited', presented in most reference grammars (see section 3.2.1 above).

Table 3.2.1: Radden and Dirven's (2007: ch. 8) event types.

Nonprogressive (bounded)	**Progressive (unbounded)**
bounded activities e.g. *Ann cuddled the baby.*[46]	unbounded activities e.g. *Ann is cuddling the baby.*
accomplishments e.g. *Ann changed the nappy.*	accomplishing activities e.g. *Ann is changing the nappy.*
achievements e.g. *The baby fell asleep.*	culminating activities e.g. *The baby is falling asleep.*
acts e.g. *The baby burped.*	iterative activities e.g. *The baby is burping.*

Table 3.2.1 above gives an overview of Radden and Dirven's event types, from which the most striking observation is that in using the progressive, all verb phrases become some sort of activity; this attests to the strong semantic affinity between these lexical and grammatical aspect categories. In the case of "true" activities, the only difference between the progressive and the nonprogressive is whether or not the situation is bounded, i.e. has an end point. This distinction is in place in all the other pairs as well, but the use of the progressive adds other distinctions to each of them. While the nonprogressive ends an activity that in theory could last indefinitely, the progressive has the opposite effect on accomplishments; this situation type has a natural end point, but the progressive shifts the focus to the durational phase, while the end point becomes less relevant – it is outside the restricted viewing frame – and may or may not be reached at all.

In the case of achievements, there is only a punctual moment in the nonprogressive, although there is an awareness of a "build-up" phase; this phase is given focus in the progressive, while the punctual event – the moment of change – is downplayed. This phase has duration and thus draws on one of the semantic properties of the progressive. Radden and Dirven term these situations *culminating activities*, which correspond to Croft's run-up achievements.

Croft's cyclic achievements find their counterpart in Radden and Dirven's *iterative activities* in the progressive, and are also given duration by the use of this construction, in the form of repetition. It is easy to construe this event type as repeated, which is not the case with

[46] All examples are taken from Radden and Dirven (2007: 180-81).

events such as the typical achievements *die* and *notice*. The nonprogressive situation type *act* corresponds to Comrie's semelfactives (1976: 42, see section 3.1.3), and although it is bounded, Radden and Dirven do not consider it telic; the punctuality of these situations is not considered an *end* point.

Croft and Radden and Dirven are not the only ones to distinguish between situations in the progressive and nonprogressive: Rothstein suggests that "the progressive operator applied to a VP headed by an achievement forces a *type shift* in the VP and results in an accomplishment into which the meaning of the achievement is incorporated" (2004: vii, my italics). Her idea of a type shift is very attractive, but refers to the composite meaning of a proposition, i.e. aspectuality, rather than to lexical aspect inherent in the verb phrase. She does, however, point to something important: the progressive makes achievements *behave as* accomplishments, just as certain other elements, especially plural objects, make accomplishments behave as activities. This will not be discussed here, but both she and e.g. Dowty (1979) and Verkuyl (1989) offer extensive illustrations in this regard.

In sum, we see that event types are construed quite differently when used in the progressive versus the nonprogressive. The progressive adds duration to situations that are not perceived as having any and gives extra focus to the duration of those that do. That the duration is limited is implied by the notion of boundaries in the maximal viewing frame. But what about stative situations? Radden and Dirven distinguish between *lasting* and *temporary* states (ibid.: 190-95); states are typically seen as lasting, in the nonprogressive. In Vendler's (1957) framework they are not characterized by duration, although most other scholars seem to disagree on this point. They are, however, unbounded. In the progressive, they are given implicit limits outside the restricted viewing frame; the primary meaning of the progressive in this case is thus to construe the situation as limited, or bounded, as we have seen that Croft also claims (1998: 71). Whether Vendler was right or not, this harks back to Quirk et al.'s (1985: 198) claim that not all meanings of the progressive need be present at once. Using Langacker's framework, one of the meanings may represent what he calls the *active zone,* which, "with respect to a profiled relationship, is that facet of it which most directly and crucially participates in that relationship" (2009: 48). We may say that either duration or limitation is the active zone of the progressive, the part that is most strongly invoked, although we always have access to all meanings.

Although the present section deals with the progressive in general, and not specifically in relation to language learning, one other view of the lexical aspect and the progressive should be included here, precisely because of its potential relevance to the learning process. While

most scholars focus on the progressive as a temporal category, and perhaps rightly so, (Durst-Andersen 2000) claims that in relating both lexical verbs and verbal morphology in their L1 to actual situations, children do not think of these in terms of *temporal* events, but rather as *spatial* ones. This can be explained by the well-known conceptual metaphor TIME IS SPACE [47], which Durst-Andersen illustrates by use of another metaphor; situations perceived as pictures. States are then seen as *stable pictures*, as in a photograph, and the situation can be perceived in an instant, which accurately represents how it holds over time. This is in line with Vendler's definition of states, as seen in section 3.1.3 above. Further, activities may be likened to *unstable pictures*, as in a film clip, where a stretch of time is needed to understand the situation[48]. For example, one instant where a person has one foot lifted and the other on the ground is not enough to conclude that this person is running; some shifting of the two feet over time must take place to make such an inference.

In Durst-Andersen's theory, states and activities are represented by *simplex* verbs that refer to single situations. All other situations are described by *complex* verbs that refer to two-part situations, which he calls *actions*, and here is where his theory differs from Vendler's. Complex verbs correspond to Vendler's accomplishments and achievements, but Durst-Andersen prefers the following tri-part classification:

> **implementation verbs** like *write* which name actions which in all normal worlds will instantiate as events by their very implementation, **punctual verbs** like *start* which, in fact, name actions from the point of view of an event whereby the activity becomes an invisible point, and **attainment verbs** like *convince* which name actions which in all normal worlds do not automatically instantiate as events by their very implementation (because of resistance from the patient or recipient of that action)
>
> (2000: 93, bold in original)

I shall not go further into this classification, but will instead maintain that Vendler's categories are still valid in light of Durst-Andersen's (DA) simplex/complex division. As a starting point, I shall interpret DA's theory to mean that all dynamic situations *take place against a stative background* and that states therefore represent an underlying temporal reference in a figure/ground relationship (cf. 2000: 63-65). State VPs therefore profile a simple, stative situation, where one instant is identical to another (potentially) indefinitely. Next, activities are

[47] See e.g. Langacker (1987: 148-9) for a discussion of time and space as basic domains and the relation between the two.

[48] This is in fact similar to Rothstein's (2004) *minimal events*; see also Dowty's (1979) discussion of activities, where he claims that they hold for all subintervals of an interval, as long as the subintervals are of a certain size.

simple situations that require a stretch of time to be properly identified, but any part of the situation may be taken to represent it in a similar manner.

As for complex verbs, these consist of an activity that leads to a state, according to DA. He is one of many who find the distinction between accomplishments and achievements problematic; Verkuyl (1989), for one, sees the cut-off point between punctual and extended events as very arbitrary and on this and other grounds dismisses the distinction between the two classes altogether. I will hold, in agreement with DA, that both accomplishments and achievements consist of an activity that leads to a state. Thus in both cases the language user is presented with a VP that allows both the activity and the state component to be present in mind. The difference between the two lies in which part of the situation is *profiled* (or comes across as the active zone, see above); an accomplishment profiles the activity component and an achievement the state component.

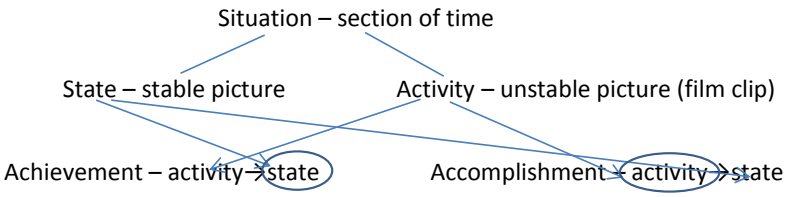

Figure 3.2.1: Model of lexical aspect based on Vendler (1957) and Durst-Andersen (2000).

Figure 3.2.1 above gives a schematic representation of the relations between the four Vendler categories. From this model we see that while both achievements and accomplishments consist of an activity that leads to a change of state, achievements *profile* the state component and accomplishments *profile* the activity component[49]; in each case, the profiled element is circled. They both therefore allow us to envision an entire composite situation, but draw our attention to different parts of it. Note also that the non-profiled element is then construed as non-significant and thus does not need to be well defined: for instance, the process leading up to the state of being dead in *die* is inconsequential and irrelevant (but may be specified if needed, e.g by an adverbial such as *of old age*), and the state that ensues after *eat an apple* is simply a

[49] See Williams (2002: 75) for a similar interpretation; also, Rothstein (2004: 41) finds accomplishments to have "an activity subevent" that is given lexically, a feature she does not attribute to achievements, although she does admit to this component as a "defeasible, contextual inference".

generic state of not doing anything in particular. The following conclusions may be drawn based on this model:

1. States relate to activities because they are both imperfective and internally homogeneous; any part of the situation is representative of the whole.
2. States relate to achievements because they both refer to or profile a situation where one instant gives enough information to assess the relevant part of the situation. The instant of reference therefore *coincides with* a/the instant of the situation and in this way restricts it to a holistic representation; an internal viewpoint is not possible.
3. Activities relate to accomplishments because they both require a stretch of time to give an accurate impression of the situation; this stretch is profiled. The instant of reference is *found within* a/the stretch of the situation and thus allows for an internal viewpoint.
4. Achievements relate to accomplishments because they both represent a situation where only a specific section of time can accurately correspond to the description: the transition from activity to state. Whether it is the stretch of the activity or the instant of the state that is profiled, it must be a specific one; either the stretch just before the state or the instant just after the activity.

As we can see, the complexity of accomplishments and achievements is twofold: they represent two-part situations where one functions as base and the other is profiled, and they are internally heterogeneous; one part cannot be replaced by another. To return to the *eat an apple* example, it is not possible to imagine an *eat an apple* situation unless we are somewhat aware that there is an immediately subsequent state where the apple does not exist anymore (at least not in the form of an apple). Similarly, it is impossible to conceive of a *die* situation without including the fact that death is immediately preceded by some sort of schematic activity that leads to this state, be it old age, sickness or more abrupt causes.

When the progressive is coupled with any one of these categories, the attention is either moved to the activity component, or the focus on this component is reinforced. This analysis is in some ways similar to that of Radden and Dirven (2007), but justifies the use of the original Vendler categories in an investigation of the progressive in learner language. This comes in addition to the fact that Vendler's categories, if not his original interpretations, form the basis for most studies investigating the Aspect Hypothesis (see section 3.4.2).

In sum, this account has aimed to show that the use of the progressive construction affects different situation types differently. It seems fruitful to analyze the use of the progressive in terms of these semantic categories, not least because such a grouping yields statistical advantages in a quantitative analysis. However, the difficulties of semantic classification (see

section 3.4.2.1) leads to complications that may best be solved in a more qualitative examination of narrower subcategories. The analysis in chapter 5 will among other things give an attempt at both of these approaches.

3.3 Related constructions

This section covers constructions that differ from the progressive, but are similar in ways that make them relevant to this project. First, as will be discussed in section 3.4.1, learners at low levels of proficiency often use the bare participle rather than the full progressive construction and it is not clear whether they distinguish between *-ing* and the progressive; therefore the *-ing* form merits a separate discussion. Second, although there is no progressive aspect, there are constructions in Norwegian that are either formally and/or functionally similar to either the progressive or the *-ing* participle, and which therefore have the potential for interlingual identification. These Norwegian constructions will be outlined to give a basis for comparison with the use of *-ing* across constructions in the learner texts.

3.3.1 The **-ing** *participle*

There are several reasons for including a brief analysis of the present participle in this project: First, it is one of the component parts of the progressive construction and therefore contributes to its composite meaning. Second, as will be seen in section 3.3.4, Norwegian has a present participle whose function partially overlaps with that of the English one. In addition, verbs may be nominalized with an *-ing* suffix, which is both formally and functionally (in nominal use) identical to its English counterpart. Although neither of these structures covers the full usage range of the English *-ing* participle, they each correspond to different parts of its meaning and usage, and are therefore candidates for L1 transfer. Finally, the data-driven method outlined in section 1.5 has led to observed differences between L1s and age groups in non-progressive uses of the participle and the potential relation between the use and non-use of these constructions on the one hand, and the use and non-use of the progressive on the other, will be explored. This section therefore presents an account of the meaning of the participle, followed by an overview of its usage in constructions other than the progressive.

3.3.2 Meaning

The participle is a construction in itself and is made up from the stem of a lexical verb and the phonologically salient (see section 3.4.1) morpheme *-ing*. Taylor discusses "a number of semantic values" of this form of the verb, one of which is to nominalize the verb; in this form

it is often called the 'gerund' (2002: 399). Taylor further claims that this nominalization causes the verbal process to be construed as an unbounded thing; gerunds normally behave as mass nouns (see section 3.2.1), and, like them, are characterized by internal homogeneity (Langacker 2008b: 155). While I agree with the proposed reification of the process, the characterization of the gerund as unbounded may be questioned; its boundedness may rather depend on the context it occurs in. In this it seems more fruitful to follow Langacker's account of mass nouns and his claim that "bounding does not figure in its characterization" (2001: 5). As with the entire progressive construction, the *-ing* participle lets us view the situation from an internal perspective, that is, within the immediate scope (Langacker 2008b: 155, cf. section 3.2). Any potential boundaries are thus found in the maximal viewing frame and are consequently out of focus. The implicit boundedness is, however, crucial to the participle's role in the progressive: if it were not construed as perfective, i.e. with implicit boundaries outside the immediate scope, there would be no need to imperfectivize it in this construction.

Although gerunds are generally seen as mass nouns in the Cognitive Linguistic tradition, Taylor remarks that there are gerunds that behave as count nouns, e.g. *killings, kidnappings, poisonings*, as well as 'result nouns' such as *building, finding*, which do not designate the nominalized process itself, but rather the product that results from it (2002: 399). These examples all involve lexical verbs that usually refer to bounded events, that is, accomplishments and achievements; it is quite hard to construe them as unbounded.

Along with participial *-ed* and infinitival *to, -ing* is "is one of several elements that construe a process holistically, thus making the profiled relationship *nonprocessual*" (Langacker 2008b: 155, my italics). In the case of *-ing*, the process is also nominalized and may behave as a noun in both clause and phrase structures. Since "[a] noun profiles a **thing** (abstractly defined)" (Langacker 2001: 3, bold in original) it is seen as a complete entity, though it may or may not be perceived as bounded. All verbs may be nominalized this way, but it seems that verbs that are typically states and activities resist definite (bounded) constructions (**the being, *the running*), while accomplishments may occur in definite contexts (*the killing, the building*). Achievements, on the other hand (?*the noticing,* ?*the dying*), are already so strongly perfective that this kind of reification seems redundant: an investigation of their presumed lack of frequency in noun constructions would indicate whether this is the case. They seem more likely to occur in clause constructions, as these depend on the temporal profile of the finite verb. The scope of this thesis does not allow for a further exploration of this subject, although one is certainly needed and should be carried out in a different context.

The second semantic value that Taylor assigns the *-ing* form, this time in its participial use, is the "relational character of the verb" (ibid.). Importantly, the participle is an atemporal form of the verb and therefore relies on other elements, especially finite verbs, to be temporally grounded and the temporal profile becomes identical to that of the finite verb. Its lack of temporality, however, allows it to function as e.g. preposition, adjective, head of adverbial clause, etc. In short, V-*ing* merges the characteristics of a noun and a verb and thereby gains the flexibility that comes with dual category membership: it can figure in a number of constructions and serve several syntactic functions. The present study will reveal which of these constructions young Norwegian learners use in their narratives.

3.3.3 Non-progressive uses

Comrie finds that "[a]lthough the *-ing* form is an essential ingredient of the English Progressive, in non-finite constructions without the auxiliary *be* the *-ing* form does not necessarily have progressive meaning; in fact, in such constructions it typically indicates only simultaneity (relative present time reference) with the situation of the main verb" (1976: 39); examples include "*knowing that Bill was on holiday, I burgled his house* (i.e. *as I knew*, not **as I was knowing*)" and "*Fred's knowing the answer to the problem of life and death amazed the theology professor* (i.e. *the fact that Fred knew*, not **the fact that Fred was knowing*)" (ibid., italics in original). He does, however, recognize one exception: SEE + *-ing*; in this case, the participle contrasts with the infinitive in much the same way as the progressive with the nonprogressive (ibid.: 40). Quirk et al. note the same thing for both SEE, HEAR and WATCH, all perception verbs, as in the contrast between *I saw/heard them **shoot** at him* and *I saw/heard them **shooting** at him* (1985: 238). We may take this to mean that progressive meaning is not strictly limited to constructions with BE, although this is the prototypical and by far the most frequent example. There are other V + V*complement* constructions where the participle and the infinitive alternate in use in a seemingly arbitrary manner, e.g. *start, try, continue;* others where *-ing* is obligatory, e.g. *keep*[50]; and yet others where both may be used, but with distinct differences in meaning, e.g. *stop, remember*. How much more progressive meaning is there in *I see him running*, than in *He keeps running*? As with other categories, the cut-off point between progressive and non-progressive meaning is hard to pinpoint and the non-progressive uses of V-*ing* seem to run a (historically bidirectional) continuum from noun to verb, with several constructions between these two, as Ziegeler (1999: 82) discusses in her account of the

[50] Cf. Quirk et al. (1985: 146), who include these in what they call 'catenative verb constructions'.

historical development of the progressive. She renders the following illustration from Haspelmath (1994) (Figure 3.1.1 below):

Figure 3.3.1: Haspelmath's (1994) verb to noun continuum.

In this model, which originates from Givón (1979), nouns are seen as the stable end of a time-stability continuum and verbs represent temporary situations; Ziegeler finds the participle to have developed from an agent noun, via an adjectival predicate, and it is gradually gaining more verb-like senses and agentive uses, which she takes as an explanation for an increased use of the progressive with accomplishments and achievements (ibid.: 89).

Aarts (2007) explores the notion of *syntactic gradience* and gives extensive evidence of how English demonstrates gradient category membership as regards both word class, syntax and constructions. As regards V-*ing,* he is in line with Quirk et al. (1985: 1290-92), who reject the term 'gerund' altogether and opt for the use of 'participle' for all verbal uses of this form, as opposed to pure nominals derived from verbs. They use the following examples to show this kind of gradience:

some paintings of Brown's [[a] 'some paintings that Brown owns';
or [b] 'some paintings painted by Brown']
[1]
Brown's paintings of his daughter [[a] 'paintings depicting his daughter and painted by him';
or [b] 'paintings depicting his daughter and painted by someone else but owned by him'] [2]
The painting of Brown is as skilful as that of Gainsborough, [[a] 'Brown's mode of painting';
or [b] 'Brown's action of painting']
[3]
Brown's deft painting of his daughter is a delight to watch. ['It is a delight to watch
while Brown deftly paints his daughter.']
[4]
Brown's deftly painting his daughter is a delight to watch. [= [3b] or [4] in meaning]
[5]
I dislike *Brown's painting his daughter.* ['I dislike either [a] the fact or
[b] the way that Brown does it.']
[6]

I dislike *Brown painting his daughter* (when she ought to be at school). [= [6a]]
[7]
I watched *Brown painting his daughter*, [[a] 'I watched Brown as he painted'; or
[b] 'I watched the process of Brown('s) painting his daughter.']
[8]
Brown deftly painting his daughter is a delight to watch. [= [3b] or [4]; *cf* 14.6*ff*] [9]
Painting his daughter, Brown noticed that his hand was shaking,
['while he was painting'; *cf* 5.12*ff*]
[10]
Brown painting his daughter that day, I decided to go for a walk.
['since Brown was painting'; *cf* 5.12*ff*]
[11]
The man painting the girl is Brown, ['who is painting'; *cf* 17.28]
[12]
The silently painting man is Brown, ['who is silently painting'; *cf* 17.98*f*] [13]
Brown *is painting* his daughter, [*cf* 4.25*ff*]
[14]

(1985: 1290-92)

It should be quite clear from these examples that such fuzzy category boundaries are a potential source of confusion for learners. Throw adjectives (*an amazing story*), adverbials (*surprisingly*) and prepositions (*considering*) in the mix and the usage range of the V-*ing* form reaches a complexity that must be hard for learners to tackle. Further arguments for this confusion are presented in section 3.4 and a more detailed presentation of the relevant functions of V-*ing* are given in section 4.8.2.

3.3.4 Progressiveness in Norwegian

The Norwegian language does not have an obligatory, grammaticized progressive construction as such, but in its linguistic inventory there are constructions that bear either formal or functional resemblance to the English progressive. These are:

- Verbs nominalized with *–(n)ing*
- A present participle V-*ende*
- Lexical constructions with a progressive function

Each of these captures one element that can be related to the English progressive and may therefore in some way influence the acquisition of this construction. They will therefore briefly be presented in this section.

a) Most verbs may be nominalized with *-(n)ing*. Faarlund et al. (1997: 98) list some examples of exceptions to this rule: *be, have, come, find, give, work.* In terms of lexical aspect, all Vendler categories seem to be represented and the exceptions therefore not aspectually motivated. However, Faarlund et al. note that most of these nouns have meanings that denote a verbal action, e.g. *skriving*, 'the act of writing', which in Norwegian must be paraphrased with an infinitival nominal construction consisting of a determiner, an infinitive marker and the infinitive form of the verb: *det å skrive*. Just as in English, both the infinitive and the verbal noun may function as nominals, almost synonymously, as in:

(30) *Skriving er gøy* 'Writing is fun'
(31) *Å skrive er gøy* 'To write is fun'
(32) *Det er gøy å skrive* 'It is fun to write'
(33) *Jeg liker å skrive* 'I like to write/I like writing'
(34) *Jeg liker skriving* '?I like writing/I like to write'

The usage is superficially similar, but there are some subtle meaning differences, as in (34), where the Norwegian noun is very "nouny" and the verbal component is stronger in English. Further, Faarlund et al. (ibid.: 98-100) give evidence that these nouns are clearly derived from verbs, as even verb phrases such as *å lage mat* 'to make food' and *å kjøre bil* 'to drive a car' may be nominalized into compound verbs; *matlaging, bilkjøring*. In addition, new verbs are quite easily derived from English loan words with *-ing*, e.g. *camping – campe*$_{\text{INF}}$*, rafting – rafte*$_{\text{INF}}$. Like their English counterparts, Norwegian verbal nouns may function as either process, or action, nouns or result nouns, e.g. *tegning* 'to draw/a drawing'. In short, the differences between the English and the Norwegian verbal noun suffix are semantically marginal and formally non-existent.

b) Though clearly verbally derived, the present participle V-*ende* is in Faarlund et al. (1997: 118-119, 472) mainly treated as an adjective, since it primarily functions as such and verbal usage is marginal and limited to fixed constructions. Nevertheless, since it seems that all possible functions may be translated with English V-*ing* constructions[51], as the below examples

[51] Provided that a lexical translation equivalent exists in the form of a participle; naturally, this is not always the case.

demonstrate, this form is relevant for the present analysis as it matches part of the noun-adjective-verb continuum proposed in the previous section.

(35) *en overraskende vending* 'a surprising turn of events'

(36) *Dette høres spennende ut.* 'This sounds exciting.'

(37) *Han kom løpende ut av huset*. 'He came running out of the house.'

(38) *Overraskende nok var esken tom*. 'Surprisingly, the box was empty.'

(39) *Vi blir sittende her litt til.* 'We'll keep sitting here a while longer./We'll stay here a while longer.'

Examples (35) and (36) show adjectival use, (37) and (38) are adverbial constructions; only the function in (39) is verbal in nature, of the kind that Faarlund et al. term *continuative aspect*[52], and the range of verbs that may be used in this construction is highly restricted: it is mainly used with a limited number of stative verbs, particularly posture verbs, and the motion verb *gå* 'walk' (ibid.: 653*f*). Another verbal function of the participle is also cited, corresponding to what Quirk et al. term *supplementives*, but this use is so marginal that it is only described as "sporadic" (ibid.: 472). From personal experience, however, I find that Norwegian teachers tend to explain English supplementives in terms of this use of V-*ende*.

c) Faarlund et al. list a number of verbal constructions that provide aspectual information and group them into the following categories: cursive constructions, 'nearly' constructions, continuative constructions, habitual constructions, ingressive constructions, egressive constructions, iterative constructions and resultative constructions (1997: 646-47). Of these, Halverson finds that the cursive, 'nearly' and iterative constructions "are relevant as translation options for the English progressive" (2007: 182) and this discussion will be limited accordingly.

First, cursive constructions are grouped into two subcategories, the first of which are variations over what may be roughly translated with 'be in the process of', e.g.

(40) *De var i ferd med å gå.* 'They were in the process of leaving.' (They were leaving.)

The second subcategory consists of posture verb constructions, extended to include the prototypical motion verb *gå* ('go/walk'), as in

(41) *Gutten satt og tenkte.* 'The boy sat and thought.' (The boy was thinking.)

(42) *Kyrne gikk og beitet.* 'The cows went and grazed.' (The cows were grazing.)

[52] All translations of aspectual terms in Faarlund et al. (1997) are taken from Halverson (2007).

Faarlund et al. point out that the latter group is more restricted than the former, primarily in that posture verbs require a subject that may be said to assume the position the verb describes (1997: 648; see also Tonne 2007: 186). One option that is not mentioned in Faarlund et al.'s overview, however, is a very similar (probably mainly colloquial) construction with *være* ('be'):

(43) *Hun er og arbeider.* 'She is and works.' (She is working.)

As this is not very relevant for the present discussion, it will not be mentioned further, but it would be worth looking into in a different context.

Second, there are constructions with 'nearly', which in form partially overlap with the first group of cursive constructions. These are variations over 'nearly', 'be about to', 'be close to', and do not always translate well into the English progressive, as can be seen from the following contrast:

(44) *Han var nær ved å dø.* 'He was close to dying.' (He nearly died.)

(45) *Han holdt på å sovne.* 'He was about to fall asleep.' (He was falling asleep.)

The third category, iterative constructions, are those that convey a repeated action:

(46) *Hun hoppet og hoppet.* 'She jumped and jumped.' (She was jumping.)

(47) *Han løper og løper.* 'He runs and runs.' (He is running.)

In (46), this construction corresponds to the iterative use of semelfactives in English, but as can be seen from (47), it may also be used with an activity verb and simply refer to a prolonged, unbounded situation. The imperfective information is thus reinforced; Lakoff and Johnson use this as an example of the conceptual metaphor MORE OF FORM IS MORE OF CONTENT (1980: 127).

Tonne (2001, 2007) looks at the distribution of lexical aspect in the cursive and 'nearly' categories, which she groups somewhat differently. Her first group is *pseudocoordination,* which mainly corresponds to Faarlund et al.'s second group of cursives. A characteristic feature of pseudocoordination is that it "always makes a sentence unambiguously imperfective" (2007: 187). Tonne terms the second group *prospec*, (*be about to, be in the process of,* etc.): these do not contain the conjunction *og* ('and') and the finite verbs in these constructions always denote continuity, journey or path (ibid: 188). An extensive outline of her findings would mean straying too much from the main subject of this thesis, but for the present purposes it should be noted that Tonne's analysis demonstrates a very clear distributional pattern for these

constructions (which she explicitly calls Norwegian progressive constructions): the pseudocoordinations occur with atelic predicates, i.e. predominantly activities, but also states, in 95% of the cases. Conversely, 95% of the prospec type constructions are found with telic predicates; accomplishments and achievements. Moreover, she finds that there is a semantic difference between the use of prospecs with the two types of telic predicates: "a process reading is excluded in combinations with achievement verbs" (ibid.), whereas accomplishments in these constructions are vague and ambiguous. What these two lexical aspect types have in common, is that they orient towards a point, but where achievements imply only one such point and the situation described by the prospec construction is prior to this point, as in *han holdt på å dø* 'he was dying' (ibid.: 188), accomplishments have both a starting point and an end point and the construction is vague with regard to which of these points the situation is immediately prior to. An example Tonne gives is *han var i ferd med å bære materialene opp til balkongen*, which may be translated into either 'he was carrying the material up to the balcony' (the situation is prior to the end point) or 'he was about to carry the material up to the balcony' (the situation is prior to the starting point) (ibid.). This leaves the construction ambiguous, in contrast to the pseudocoordination, whose role is precisely to disambiguate the meaning of the predicate. Tonne's analysis suggests that native speakers of Norwegian are already sensitive to lexical-aspectual differences and the way they relate to expressions of progressiveness. On the other hand, this sensitivity is based on a system that does not fully correspond to the semantic distinctions of the English progressive. The Norwegian system seems to draw a fairly strict dividing line between telic and atelic situations and their respective lexical constructions, whereas the English system – as suggested in section 3.2 – is largely based on the relative presence of an activity, or process, component; an element which seems to be located at a higher schematic level than the two construction types in Norwegian. Tonne further claims that "the aspectual meaning of the Norwegian prospec-accomplishments is a superset of that of the English progressive-accomplishements[sic], exhibiting partial overlap for precisely the period of the event beginning with its initiation and extending through its duration to just before the culmination", (ibid.: 193). This vagueness with regard to where the profiled process is situated – before or after the beginning of the situation – exemplifies what Langacker (2009) describes as semantic *indeterminacy*; he sees grammatical structures as metonymic constructions, which may profile a whole-for part relationship. A construction may thus stand for only part of its meaning and it is up to the language user to determine from the context which part is the *active zone* (see section 3.2). The semantics of the individual VP and the general context therefore contribute to our understanding of the exact relationship between this construction and its

constituent parts. This is evidenced by the lack of vagueness in prospec-achievements; if the role of prospec is to orient towards a point, then the punctual construal of achievements yields a clear reading, while the beginning and end points of accomplishments give room for a wider interpretation. English progressive accomplishments and Norwegian prospec ones are similar in many respects, but unlike the Norwegian constructions, the English progressive does not allow a focus on a process leading up to the start of the situation, only the conclusion. Achievements, on the other hand, behave similarly with respect to the focal point. This prominence of telic points relates well to the research of Stutterheim and others (e.g. Stutterheim and Carroll 2006, Schmiedtová, Stutterheim, and Carroll 2011), who find that speakers of L1 Norwegian and German focus on end points significantly more often than speakers of L1 English and other languages.

The simple tense is not listed as a separate item here since it cannot be said to contain explicit imperfective or progressive meaning (Tonne 2007: 194), but it must be mentioned since it is the most frequent translation equivalent of the progressive, as both Tonne (ibid.:191) and Halverson (2007: 190) have found in their analyses of parallel corpora.

Norwegian	nominal *-(n)ing*	adj./adv. *-ende*	pseudocoordination	prospective constructions
English	nominal *-ing*	adj./adv. *-ing*	progressive construction with atelic verbs (states, activities)	progressive construction with telic verbs (accomplishments, achievements)
noun-verb continuum	noun	adj./adv.	verb	

Table 3.3.1: Overview of correspondences between English *-ing* and Norwegian constructions on a noun-verb continuum.

To sum up, the Norwegian language contains items that match most uses of English V-*ing*, both progressive and non-progressive constructions, as summarized in Table 3.3.1 above. We see that non-verbal uses of *-ing* correspond to nominal and adjectival forms in Norwegian as well, whereas the progressive finds counterparts in two different types of verbal constructions whose use is strictly governed by the semantic feature *telicity*. The notion that Norwegian learners must learn an entirely new concept when they are presented with the English progressive is therefore erroneous; in fact, if Tonne's analysis is correct, they should be particularly sensitive to the telic (perfective)/atelic (imperfective) distinction, which corresponds to the distinction between accomplishments and achievements on the one hand, and states and activities on the other. The challenge at hand must rather be seen as a cognitive

restructuring (cf. Jarvis and Pavlenko 2008: ch. 5, and chapter 2 of the present work), where established concepts must be redistributed to new constructions, which have different frequencies to boot. The question of frequency, among other things, will be addressed in the next section.

3.4 Learning the progressive

"Speakers do not necessarily make the relevant generalizations, even if clever linguists can. Cognitive linguists, like other theoretical linguists, must be aware of this fallacy."

(Croft 1998: 168)

Evidence from a large number of studies (e.g. Brown 1973, Dulay and Burt 1973, 1974a, de Villiers and de Villiers 1973, Lightbown 1983, Goldschneider and DeKeyser 2005), both L1 and L2, demonstrates that the progressive – or rather, V-*ing* used in the progressive – is one of the very first grammatical functors acquired[53] by learners of English and thus, presumably, one of the most basic and prominent features of the language. These studies also suggest that – in the case of L2 learners – "type of instruction has no influence on the order of acquisition of grammatical functors" (Goldschneider and DeKeyser 2005: 42); this seems to be a universal feature as to the learning of English, and Goldschneider and DeKeyser find this acquisition order to be a function of the properties of the functors in question. They do, however, emphasize that they "do not wish to exclude the possibility that other factors external to the functors, such as L1 transfer, also contribute to the observed order" (2005: 39).

While the previous sections have mainly looked at the complexity of the progressive from a theoretical linguistic perspective, it is now time to turn to the challenges learners are faced with in acquiring this construction. The first part of this section deals with properties of the progressive and its usage patterns that are relevant for how learners approach the construction. This is followed by an outline of the Aspect Hypothesis, which considers the semantic properties of verb phrases that combine with the progressive. The last element under discussion is whether there is reason to expect any L1 influence when second-language learners use the progressive. Finally, an attempt is made to discuss all of the above under one.

In light of the theory theory, as well as Tomasello's insights on language learning, both discussed in chapter 2, one may assume that learners subconsciously try to fit the linguistic data they encounter into a "theoretical framework". One may also take this to be a process, such that the framework is gradually refined as more and more input provides new evidence. One may

[53] Brown (1973) found that a functor was acquired when it was correctly used in at least 90% of obligatory contexts, a definition adopted by e.g. Dulay and Burt (1974a).

not, however, assume that learners reach the same conclusions as linguists, as the above quote suggests, nor that the framework is internally consistent or shared by all learners.

The present chapter section examines various possible explanations for phenomena which were immediately observable from a first handling of the dataset, with reference to previous studies and different theoretical approaches, some of which will be tested against the data in this project. As will be seen in chapter 5, overuse of the progressive is extensive in the youngest L2 group in the present study and the different perspectives will be discussed in an attempt to explain this overuse.

3.4.1 Frequency, salience and transparency of meaning

This section presents one possible set of factors in explaining learner usage of the progressive. Drawing on the One to One Principle (Andersen 1984) and pooled results from the numerous functor acquisition order studies (Goldschneider and DeKeyser 2005), it is argued here that learners initially perceive all tokens of V-*ing* as instantiations of one single construction and that this contributes to the overuse of its most typical function, the progressive.

The One to One Principle, which Andersen takes to be "especially valid as a "first step" in interlanguage construction, […] specifies that an IL system should be constructed in such a way that an intended underlying meaning is expressed with one clear invariant surface form (or construction)" (1984: 79). He goes on to define 'meaning' as relational meaning (*possession, plural, punctual,* etc.) and 'form' as both grammatical morphemes and word order constructions. He finds that this principle resonates well with several previously stated variations over the same theme and cites some of Slobin's (1973) well-known Operating Principles as examples. For the present purposes, the most relevant of these are: *avoid interruption or rearrangement of linguistic units* and *avoid exceptions* (cited in Andersen 1984: 80). For early English interlanguage progressive constructions, Andersen points to studies that found a basic aspectual opposition between 'zero' and *-ing* morphemes (ibid: 90). He further suggests that several studies that support his principle have one thing in common; they point to interlanguage systems that require revision as the auxiliary node develops and "hitherto independent developments begin to interact" (ibid: 91).

The famous functor acquisition studies have established ample support for claiming that different grammatical functors develop at different stages and probably also independently, cf. the above quote. Goldschneider and DeKeyser offer a metaanalysis of several of these studies by pooling their results for six of the relevant grammatical functors. They identify five determinants that together seem to explain the variance in acquisition order, and see these five

as "part of a broad conceptualization of *salience*" (2005: 27, my italics). The relevance of each of these determinants for the present work will now be examined, with special reference to the morphemes involved in the progressive construction: forms of the auxiliary BE and the *-ing* suffix, as the functor order studies consistently show that *-ing*[54] is one of the earliest functors acquired and earlier than the auxiliary in the studies where this feature is included (e.g. Brown 1973, Dulay and Burt 1974a).

a) *Perceptual salience*: As the term indicates, this refers to how easily a structure is heard or perceived. Goldschneider and DeKeyser base the score for this factor on the number of phones, the syllabicity and the sonority of the functor. The assumption is that learners will find an item more salient the more phones it contains (average across allomorphs if more than one), the more sonorous it is, and if it contains a vowel. The *-ing* suffix scores high on all three components: it consists of two phones, one of which is consistently a vowel in all phonological environments, and the high vowel and the nasal consonant together give the highest sonority score in their study. In addition to this, it is suggested that word-final morphemes are particularly salient (p. 48). The auxiliary is not included in this pooled study, but given the criteria listed above, this functor should receive a much lower score on all counts (for details on how the scores are calculated, see Goldschneider and DeKeyser 2005: 48-50), particularly in oral language, where the contracted form is common.

b) *Semantic complexity*: For this predictor, the assumption is that the more meanings are expressed by one form, the more difficult it is to learn this form. The authors point out that this is a difficult determinant to score, as the meanings assigned to the functors are "open to debate" (ibid.: 51). The *-ing* suffix is scored for two meanings (unspecified by the authors), whereas the auxiliary is similar to 3rd person *-s* in this respect and must be scored for person, number and tense.

c) *Morphophonological regularity*: This is a measure of "the degree to which the functors are (or are not) affected by their phonological environment" (ibid.). In this case the authors predict that a functor will be acquired earlier the more phonologically regular it is (i.e. the fewer

[54] Note that *-ing* is often referred to as 'the present progressive' in these studies; however, in the studies where the auxiliary BE is included, this functor is marked for presence or absence, with the implication that there are many cases where the progressive is realized as only V-*ing* (e.g. Dulay and Burt 1974a: 42). In the cases where it is absent, then, the progressive is not marked for tense since the auxiliary is the tense carrier. It therefore seems more appropriate to label this functor just 'progressive', or at least specify that the study tallies obligatory contexts for the present progressive, regardless of realization. As Goldschneider and DeKeyser's account focuses on the salience of the *-ing* suffix, it will be assumed that it is only this morpheme and not the entire progressive construction that is under consideration here.

allomorphs). Two elements factor into this assessment: Number of phonological alterations and homophony with other grammatical functors. Again, *-ing* should be very salient due to its phonological regularity, while the auxiliary has at least a dozen allomorphs, counting all tenses and modal uses. In addition, *-ing* is not homophonous with any other functors, while the present tense forms of the auxiliary are homophonous with plural *-s*, possessive *-'s*, 3rd person singular *-s*, as well as a general homophony with the copula. A possible subfactor mentioned for this type of salience, but not included in the score, is *redundancy;* the degree to which the functor is needed to convey meaning. In this respect, it may reasonably be speculated that *-ing* carries a heavier information load than the auxiliary.

d) *Syntactic category*: Here the authors draw on Zobl and Liceras' (1994) hierarchy of functor acquisition, where it appears that lexical items are acquired before functional items and free morphemes before bound ones. Goldschneider and DeKeyser adopt Zobl and Liceras' criteria for category assignment for the functors in their study, yet they note that they do not "find adequate justification" for their argumentation (2005: 66, footnote 14). This point must therefore be included with a good amount of caution. As regards the two functors of interest here, *-ing* is given a high score (based on its status as a "lexical affix"), which indicates early acquisition, whereas the criteria are not transparent enough for me to attempt to score the auxiliary. Note, however, that the auxiliary is variably bound, as it is commonly used in the contracted form in oral and informal language, but cautioned against in formal, written language. This should indicate a lower acquisition potential from oral than from written input.

e) *Frequency*: This factor was early on introduced as the hottest candidate for explaining acquisition order (e.g. Larsen-Freeman 1976), but scholars disagree as to its effect. Moreover, frequency of input is difficult to measure, as learners are exposed to the target language from various sources and in different amounts. Goldschneider and DeKeyser choose to rely on the postulate that "not too much variation can be expected from one input situation to another" (2005: 55) and use frequency data from parent speech in Brown's investigation as the basis for their score. Again, *-ing* receives a high score.

There are several problems with using raw frequency scores as a measure for this factor. The discussion in section 2.1.4 pointed to the complexities of frequency effects and how this interacts with other factors, of which various aspects of salience clearly is one; otherwise it would be difficult to explain why *-ing* is acquired earlier than the auxiliary, when they are presumably equally frequent in the input. Indeed, if the two morphemes are regarded separately, i.e. not only in the progressive construction, *-ing* is far less frequent than at least the allomorphs

of the present tense 3rd person singular of the auxiliary (*-s, -z, -əz*), from a strictly phonological point of view[55].

Ellis (2002) stresses the importance of distinguishing between type and token frequencies (see 2.1.4), and from this perspective *-ing* becomes more prominent; although the token frequency of the progressive and other functions of *-ing* is relatively low[56], it has high type frequency, since it may occur with all lexical verbs, just like the regular past tense that Ellis gives as an example[57]. Moreover, it does not compete with irregular forms, as the regular past does, and may be used in all tense and modal constructions, as well as non-finite constructions, with no modification of the basic V-*ing* form. This frequency pattern is highly conducive to entrenchment. Despite its high frequency, the auxiliary does not offer the same stability of form as the *-ing* suffix; not only does it have several allomorphs, its syntactic position also varies, e.g. with question inversion (*Is he coming?*), negation (*He is not coming.*) or other adverbial intrusion (*He is definitely coming.*). These are clearly a breach of Slobin's Operating Principles, which require that linguistic units are not interrupted or rearranged, and may make it difficult for learners to see the auxiliary and the *-ing* suffix as parts of a single construction.

Goldschneider and DeKeyser find that their proposed determinants do account for a large proportion of the variance found in the functor studies, although some of the objections previously raised could not be taken into consideration; notably, the studies have focussed on use in obligatory context and not paid attention to oversuppliance in non-obligatory contexts[58]. Based on their results, they suggest that salience is "the ultimate predictor of the order of acquisition" (2005: 61). In addition, they point to one more facet that is relevant for the present study: *salience of the form-meaning relationship*. Several factors – allomorphy, homonymy and semantic complexity – make it difficult to abstract a one-to-one form-meaning relationship, and also in this respect *-ing* comes out better than the auxiliary. Salience is also an important feature of Langacker's (1987, 2008b) *Cognitive Grammar* as this allows us to profile an element against a conceptual base.

[55] So as to include possessives, plurals and the copula.

[56] Numbers vary somewhat between corpora and genres; for the progressive Smith reports a range from 1% of all VPs in "learned and scientific texts", to 9.5% in "scripted television drama" (2002: 320), whereas Quirk et al. puts the number at "less than 5%" (1985: 198) and also notes that there is genre variation.

[57] See also Bardovi-Harlig (1999: 344-45) on morphophonological salience and the past tense.

[58] For a criticism of the obligatory context criterion, see Bley-Vroman (1983).

Another type of salience may be added to the ones already presented, namely what I choose to call *referential salience*: the referent of the linguistic unit, the *signifié*, is often easy to observe and direct attention to within Tomasello's joint attentional frame (2003a, cf. section 2.1.2) As e.g. Kleinmann (1977), Durst-Andersen (2000) and Schmiedtová et al. (2011) point out, the progressive is mainly used to refer to concrete situations that are observable (at utterance or reference time), either visually or by use of other senses. As seen in section 2.3, Slobin claims that grammatical categories whose meaning is 'obvious to the senses' are easier to acquire than the ones that 'cannot be experienced directly' (1996: 91). This property of the progressive should make it both more salient and easier to grasp, although such an interpretation might stand in the way of other semantic properties of this construction and make learners focus inordinately on its descriptive function, leaving other features to be added later on. Such a successive addition of semantic properties is noted in both Robison (1995) and Housen (2002b).

From the above discussion, a picture emerges where the literature suggests that *-ing* has high salience and should be easily acquired and the auxiliary has low salience and should be more difficult to acquire. If this is so, it is likely that learners first learn to add the *-ing* suffix to the stem of the verb, and only later add the auxiliary to make it a complete construction, as observed for young L2 learners in e.g. Housen (2002b: 158). Ravem (1974), Brown (1973) and, as already mentioned, Andersen (1984) all point to the role of auxiliary development in the early acquisition of linguistic structures. Questions arise such as, do learners distinguish between the different uses of the auxiliary allomorphs at all (cf. the One to One Principle) and to what degree do they even notice it or pay attention to it? If this analysis is valid, it must mean that V-*ing* is not perceived as strongly connected to the auxiliary during the early stages of learning[59]. This in turn suggests that *-ing* is an excellent starting point for the One-to-One principle, because the auxiliary is initially disregarded and it will thus seem as if most uses of this invariant item have identical meaning[60]. Only with more L2 knowledge will distinct constructions and meanings begin to crystalize.

Finally, mention should be made that the auxiliary might not be particularly salient for all proficient native speakers either, even adults; both Smith (2002) and Ziegeler (1999) comment on the increasing cliticization of the auxiliary (and copula); Ziegeler even goes so far as to predict future finite-verb status for V-*ing*:

[59] Personal, informal conversations with 10-year-old Norwegian learners indicate that the relevance of the auxiliary has indeed escaped their notice.

[60] Similarly, Kellerman, quoting Lehrer (1974: 38), notes in an endnote that "if two 'concepts' are called by the same name, there is prima facie reason to look for semantic similarity" (1983: 130); Kellerman takes this to be true of L2 learners as well as native speakers.

> The differences between the Participle stage and the Verb stage are not obvious in present-day uses, but it may be predicted that the cliticization of the copula, with frequent use, could lead to eventual loss and the participle assuming the functions of a full verb, something already observable in the going to futures of some creoles
>
> (1999: 88)

She finds this prediction justified by her analysis of the historical development of the progressive construction, where she claims that the grammaticalization of this structure does not lie in the lexical verb, which in its participial form has not undergone any change, but rather in the copula BE, which has gone from full lexical verb to auxiliary in this construction, and is now on its way to becoming an enclitic (ibid.:89).

3.4.2 The Aspect Hypothesis

Recent years have seen have seen a surge of interest in the approach to tense-aspect learning commonly known as the Aspect Hypothesis (AH). Based on several empirical studies – for SLA, Bardovi-Harlig (2000: 196) emphasizes the early 1980s' pioneering work of Andersen, Housen, Robison and Shirai at UCLA, as well as Kumpf and Flashner – the hypothesis stresses the strong connection between lexical semantics and the acquisition of tense-aspect morphology in both L1 and L2 learners. The hypothesis has at earlier stages been known as the *defective tense hypothesis* (e.g. Andersen 1991) and the *primacy of aspect hypothesis* (Robison 1995), because they describe the apparent fact that learners at first use tense and aspect morphology to distinguish between semantic categories, independent of the target language functions of these morphemes (Bardovi-Harlig: ibid.). For this study, I rely on Shirai and Andersen's articulation of the hypothesis, which also holds for L2 learners:

> A consistent pattern of development has been observed in first language acquisition of tense-aspect morphology, as noted above. We tentatively call this the ASPECT HYPOTHESIS, summarized as follows:
>
> 1. Children first use past (or perfective) marking predominantly with achievement and accomplishment verbs, eventually extending their use to activity and finally to stative verbs.
>
> 2. In languages that have progressive aspect, children first use progressive marking mostly with activity verbs, then extending it to accomplishment and achievement verbs.
>
> 3. Children do not incorrectly overextend progressive markings to stative verbs.
>
> (1995: 745)

As Collins (2002: 48-49) remarks, the most robust findings have been for the first part of the hypothesis. Bardovi-Harlig (2000: 206-210) gives a tabular overview of research on the Aspect Hypothesis up until then, which shows a great variety of methods, L1 backgrounds, target languages, learner ages, analytical tools, etc. Most of the studies seem to deal with adult learners and use Vendler's categories; for the other factors there is greater variation. Later work includes, but is by no means limited to, Salaberry and Shirai (2002), Collins (2002, 2004b), Housen (2002b) and Rocca (2002, 2007).

The present study only investigates the spread of the progressive construction and is therefore mostly concerned with parts 2 and 3 of the hypothesis, although its interaction with both the past and present tense is considered. As can be seen from the above quote, past or perfective morphology works in the opposite direction of the progressive, with accomplishments as the second stage in both developmental paths. This indicates a basic opposition between atelic activities and telic achievements in this respect, while accomplishments seem to be an intermediate category. This resonates well with the model outlined in section 3.2, as the Aspect Hypothesis supports a strong association between the progressive and the presence of an activity component. Conversely, a relative lack of this component is connected to past or perfective use. States are the last category to receive morphological marking, for reasons that will not be further explored here. Several explanations for this well-documented pattern have been put forth, some of which will now be briefly considered.

The One-to-One principle

As early as 1984, Andersen mentions the acquisition of tense-aspect morphology as an example of this principle (cf. section 3.4.1 above). It will be recalled that the principle postulates "an intended underlying meaning […] expressed with one clear invariant surface form (or construction)" (1984: 79). Housen, for one, lists a number of functions of English V-*ing* that learners have to learn: "progressivity, habituality, futurity, continuity and backgrounding in narrative discourse" (2002b: 156). He finds that progressivity/imperfectivity is the first function that is marked by V-*ing*, but only after an initial, pre-functional stage characterized by random or complementary distribution (and often without (proper) use of the auxiliary). Only at a later stage do other functions enter into the picture, and he suggests the One-to-One principle as one possible explanation for this development. Bardovi-Harlig (2000: 425) also mentions this principle in her overview of explanatory factors; similar reasoning is also behind the

congruence principle, positing that learners use morphology whose meaning is similar to that of the verb, and the *relevance principle*. Bardovi-Harlig sums up these principles as follows:

> Learners are constrained by the one-to-one principle to associate an inflection first with its prototypical meaning, and by the relevance principle to use the inflection with verbs that most closely share its meaning.
>
> (2000: 426)

In light of this, Robison's findings in his 1995 study mark a bit of a paradox; the "affiliation of progressive marking with activities *strengthens* with proficiency level" (1995: 356). If learners *first* associate forms with their most prototypical meanings, then this prototypicality effect should rather be expected to weaken as learners are exposed to a broader range of usage.

The discourse hypothesis

Bardovi-Harlig (1998, 2000) describes this hypothesis in terms of the two parts that constitute narrative discourse: the foreground and the background. In this model, the foreground forms a skeletal structure and relates events in clauses that move time forward (1998: 475-6). The role of the background is different; it does not relate main events in themselves, but rather provides contextual information and elaborations on these (ibid.). The prediction here is that different aspectual markers are reserved for foreground and background clauses respectively in early interlanguage. This distribution follows the progressive/nonprogressive distinction observed in tense-aspect studies, where past/perfective morphology, or even no morphology in some languages, is associated with foreground clauses and the progressive is mainly used for background information. This hypothesis is reflected in Comrie's (1976: 77) note that the nonprogressive is the preferred choice for sequential events, although the use of the progressive is possible; it is also in harmony with Langacker's analysis of the English present tense, which is, among other things, used for reporting events.

One problem with relying on this hypothesis is that it requires a rather sophisticated understanding of narrative structure, one that goes beyond a definition where "the speaker relates a series of real or fictive events in the order in which they took place" (Dahl 1984: 116, cited in Bardovi-Harlig 2000: 279). Adult L2 learners may not have reached a high proficiency level in their L2, but still have a general competence as regards narrative structure. Younger L2 learners on the other hand, as the ones in the present study, are still in the process of developing complex narrative skills (see McKeough and Genereux 2003) and therefore less capable of structuring narratives in the manner suggested by the discourse hypothesis. As for the youngest

L2 groups in this study, their instruction up until the time of writing has mainly focused on oral language and this may well be reflected in their texts. On this background, and based on the actual nature of the texts in the material, the discourse hypothesis will not be considered further in this work.

The distributional bias hypothesis

Andersen and Shirai (1994) find that the patterns found in learner language are reflected in native speaker language and that this serves as input for the learners. The difference between L1 and L2 speakers, however, is that native speakers are able to deviate from this relative pattern in flexible and creative ways, whereas L2 speakers are more locked to the patterns predicted by the Aspect Hypothesis. This phenomenon is known as the 'insider's advantage' (Andersen 1994). The L1 data in this project will reveal whether this is true of younger L1 speakers as well.

3.4.2.1 Operationalization of the hypothesis – methodological issues

As seen from the discussions in the chapter sections above, lexical aspect is a complex subject matter and its role in relation to the progressive aspect seems to be substantial, not least from an acquisitional point of view. It therefore seems highly relevant to investigate whether the informants in this study perform in line with the Aspect Hypothesis (Shirai and Andersen 1995, Bardovi-Harlig 2000), as outlined at the beginning of section 3.4. There are, however, problems that arise when one is to operationalize such an investigation[61]: as we have seen, Vendler's (1957) categories are not absolute and there is no list one can turn to in order to identify the correct category each verb or verb phrase belongs to. In addition, there is the question of whether lexical aspect is inherent in the semantics of the individual verb or whether category assignment should be determined on the basis of the whole verb phrase, or even the entire relevant context, be it argument structure, adverbials, the whole utterance, antecedents, discourse context, etc. (see section 3.1.3). I find the issue of categorization very problematic for a number of reasons:

Definition of the categories

In order to test a specific hypothesis, it is essential to use the same criteria that others have used before, so that the results are comparable to those from previous studies. However, this should

[61] See also Housen (2002b) for a discussion of these issues.

not automatically be taken to mean that I agree with how the categories are defined or which criteria should be used to assign category membership. Vendler's categories have been interpreted in many different ways, as can be seen from the discussion in 3.1.3. An operationalization of the hypothesis on a set of given terms means that I will have to choose between testing the hypothesis on a new group of subjects by the conventional criteria on the one hand, and testing it by means of revised criteria on the other. For the sake of comparability, I choose the former option, but because of this objection as well as others outlined below, I find that a more fine-grained analysis based on problematic subcategories of verbs is also required (this is found in section 5.9).

Inconsistency in the literature

While it is widely acknowledged that contextual information must be considered (Shirai and Andersen 1995, Bardovi-Harlig 2000, Rothstein 2004, Rocca 2007), there is plenty of evidence that the same authors that make these claims, discuss lexical aspect as if it were inherent in the decontextualized verb. For instance, Shirai and Andersen inform us that "*live* is inherently stative, while *jump* is inherently punctual" (1995: 744) and twelve years later, Shirai states that "*sit* and *stand* are activities in English" (2007: 59). Similarly, Rothstein tells us that "the idea that the progressive operator applied to *a VP headed by an achievement* forces a type shift in the VP and *results in an accomplishment* into which the meaning of the achievement is incorporated" (2004: vii, my italics). Dowty (1979) provides a very useful list of verbal categories and subcategories that may belong in each of Vendler's categories, with examples of specific verbs and verb phrases in each category, but is careful to point out that many of these verbs may also be placed in one or more of the other categories. Housen, on the other hand, quite categorically states that the Aspect Hypothesis "predicts that TA morphology will initially be distributed in terms of inherent aspect" (2002b: 174), but still goes on to say that contextual information was taken into consideration in his study. Robison (1995: 352) is careful to point out that he relies on a strictly decontextualized analysis of the verb phrase in its base form, so as to avoid partiality and circular results; however, the meaning of potentially ambiguous verbs was first determined from the context. The confusing conclusion to be gleaned from all this is that *lexical aspect is inherent in the verb, but must be determined from the context the verb occurs in*.

Rothstein's idea of a *type shift*, which Rocca (2007) also embraces, seems to provide a good explanation for this paradox, but does not solve the problem of whether category

assignment should be based on inherent properties of the verb or the verb phrase in context. This brings us to the next problem:

Delimitation

If we suppose that context is necessary to establish which category a verb phrase should be placed in, how much context is necessary? Shirai and Andersen (1995) recommend reading part of the discourse to be sure about the interpretation of the sentence(s) to be coded, before performing a set of tests to determine category placement. The tests are therefore on sentence level, but interpretation seems to encompass discourse level. In Shirai and Andersen's study, even extralinguistic contextual cues were provided. This much information takes the analysis far beyond the verb and gives support to Verkuyl's (1989) claim that lexical aspect is not a property of the verb, but must always be analyzed at phrase level, and that a major factor in the analysis, telicity, is found at sentence level. Again, this contradicts several scholars' discussion of single verbs as if they inherently belonged to a particular Vendler class. Bardovi-Harlig, on the other hand, claims that "[m]embers of an aspectual class are often referred to simply by the label "activities" and are often called "activity verbs" as a short form, although *everyone agrees that what is meant is "activity predicates"* (2000: 215, my italics). This excludes information about e.g. the subject, which may alter the meaning of the predicate depending on whether it is in the plural or the singular, as Verkuyl (1989) points out (cf. the discussion in 3.2), e.g. *The girl notices the ring on her finger* (single event, telic) vs. *Girls notice the ring on her finger* (multiple events, habitual, atelic). Following Bardovi-Harlig's definition, *notice the ring on her finger* would be an achievement, but would this still hold true in the atelic reading? For this study, the classification takes the VP alone as a starting point (following Robison 1995), unless its meaning is ambiguous. Whenever this is the case, as much context as is necessary will be considered (following the convention of other studies, cf. 4.8.2.2), until the meaning is disambiguated, whether this involves information provided by adverbials, the visual context of the picture story, knowledge of the L2 learners' L1, or other relevant cues.

Achievements

As already seen (section 3.2), Verkuyl (1989) questions the very existence of this class, as the cut-off point for whether a situation has duration or not seems extremely arbitrary. The psychological reality of these classes may involve a gradual rather than an absolute distinction and the AH studies show that they tend to behave similarly with regard to tense-aspect development in learner language. Wulff et al. (2009) measure the use of the progressive in learner language against native-speaker telicity ratings, rather than using the traditional lexical

aspect categories, and for the most frequent verbs in their data they find a highly significant negative correlation between use in the progressive and mean telicity ratings; their findings will be made extensive use of in the analysis in section 5.9. In addition, Durst-Andersen's theory of tense-aspect acquisition involves duration as a crucial criterion for the choice of past tense forms, since something that is of very short duration is more difficult to describe before the situation is complete. In light of this, as well as methodological convention in the AH studies, perceived punctuality will be used as a criterion for identifying achievements, as this corresponds to very high telicity, although very short duration may not be a defining trait of achievements, if they are seen as distinct from semelfactives; unlike the former, the latter does not involve a change of state. Relative telicity or duration cannot be a factor in this study, but it is worth noting that the choice of grammatical aspect may rely just as much on these as on an absolute distinction between lexical aspectual categories.

The interpretation dilemma

Even with rigorous testing, we see that there is no way around relying on the researchers' interpretation to a greater or lesser extent. No matter how well the method is described and how many tests are applied, there is no way of knowing with any certainty how they have concluded, unless an exhaustive list is provided. Researchers may use the same tests, but reach different conclusions. Klein (2009: 61-64) points to the fuzziness of semantic interpretations and considers syntactic and morphological operations more reliable, although these come with their own set of problems, as can be seen from several of the discussions in this work.

Shirai and Andersen discuss intrarater reliability, that is, one and the same researcher's ability to reach the same conclusion on two given occasions. They found that when the same researcher replicated the tests on a sample of the material after two years, there was a reliability of 93% (Shirai and Andersen 1995: 750). Presumably, this discrepancy is acceptable, but still shows that even an experienced rater applying carefully developed tests may be slightly off the mark. Also, if intrarater reliability is not 100%, then *inter*rater reliability must be even harder to achieve; an example is given in Housen (2002b: 175), where this method yields only 86% agreement (Housen's solution is to discard tokens where agreement could not be reached, which in itself is problematic, as the contribution of these tokens to the overall picture is equal to that of the clearer cases). This contrasts with morphological categories, where the verb form (in context) unmistakably marks category membership. If different raters do in fact reach different conclusions, then this will affect the comparability of the results, but unless such information is provided, the research community will be unaware of potential discrepancies. For the sake of

transparency then, lists of all the verbs in the dataset are provided in Appendix E, with their most frequent aspectual interpretation.

Standardized tests

A somewhat satisfactory solution to the problem above would be for everyone who wishes to study lexical aspect to use exactly the same tests. There are however, difficulties with some of the tests as well. A general problem is that even the tests rely on semantic interpretation, as Klein also makes clear (2009: 61-64). Another is that many of them were developed with the notion in mind that lexical aspect is inherent in the verb. In their study, Shirai and Andersen use operational tests that "rely on a number of studies on inherent-aspectual classification" (1995: 750), among them Dowty's (1979) tests. If these tests are indeed applicable on phrase or sentence level, then that at least suggests a connection between inherent and context-dependent lexical aspect. Some additional problems with specific tests are discussed below.

The comparative fallacy

In dealing with learner language, it is important to recognize the autonomy of interlanguage and not assume that it relies on the same linguistic, in this case semantic, system and perceptions as the target language. This is known as the comparative fallacy (Bley-Vroman 1983). Shirai (2007), for example, points out that certain verbs that are, respectively, states and activities in English, are achievements in their Japanese translation equivalents. Such a discrepancy may colour the learners' conceptions of the verbs in question and hence their association with morphological categories. On the other hand, what the Aspect Hypothesis predicts is that learners of different L1 backgrounds follow the same path of learning when it comes to associating verb semantics with tense-aspect morphology. If the hypothesis is to be tested with any degree of consistency, the semantic categories of the target language must be used as a point of departure. A method that does not take this into consideration risks yielding different results depending on the learners' L1 background, not because of the target language verbs used, but because of how they are interpreted by the learners; a situation might arise where otherwise comparable verb phrases must be classified e.g. as activities in texts by learners of one L1 background and achievements in texts with another background. Another problem with this is that a learner-based interpretation requires a degree of insight into the learners' minds that it is quite difficult to obtain. Certainly, based solely on the text submitted, it is impossible to know whether a learner's use of a target language verb is in line with target language semantics, the learner's L1, or has a unique interlanguage interpretation. Again, if this is cause

for any ambiguity, contextual cues must be considered. For languages as closely related as Norwegian and English, this should not be a considerable problem, although the issue will be addressed briefly in a closer examination of certain semantic groups, notably the ones that can be related to findings from studies on the role of end points (e.g. Stutterheim 2003, Stutterheim and Carroll 2006, Schmiedtová, Stutterheim, and Carroll 2011) (see section 5.9.4).

Problems with tests

There are some general as well as specific problems with some of the commonly used tests. The ones that are most relevant for this particular study are briefly discussed here:

1. A paradox found in most of the tests is that they are said to be based on the separation of grammatical tense-aspect and lexical aspect, which e.g. Rocca (2007) argues for. Therefore the verb phrase is analyzed in its base/infinitive form, with no reference to the tense-aspect morphology it actually occurs with in the texts. This is all very well in principle, and certainly the Aspect Hypothesis would be difficult to test unless these factors are kept apart. However, we have already seen that tense-aspect morphology may be the cause of type shift, as in Rothstein's example of achievements that become accomplishments in combination with the progressive aspect, although one may certainly argue that this is on the level of aspectuality and thus refers to the composite nature of full sentence interpretation. Nevertheless, the role of morphology is undeniable.

The progressive is also the only difference between e.g. *He is nice* (state) and *He is being nice* (activity); again, this is the aspectuality interpretation. An investigation of the progressive's interaction with lexical aspect cannot include the effects of the progressive in the initial analysis, this much is clear. On the other hand, most studies seem to use tests where the abstracted verb phrases are tested on their ability to occur with different verb morphology and/or the effects that this morphology has on the semantic content of the verb phrase. Therefore, the verbs are indeed tested without regard to their *specific* morphological context, but rather in a *variety* of morphosemantic contexts. This may perhaps be the only appropriate strategy, but it serves well to be clear about this, as the implication is that morphosemantics *is* in fact relevant for the interpretation of the VP's lexical aspect and/or the aspectuality of the description. As discussed in section 2.1.4, Goldberg (1995) builds her analyses on the Principle of No Synonymy of Grammatical Form, which posits that two different grammatical constructions will always yield two different meanings, which in this case may lead to a type shift with regard to aspectuality. The consequence of these considerations may be that only by

testing the verb phrase in a variety of different contexts, may we approach the most likely abstracted semantic interpretation. Durst-Andersen takes a clear stance in this respect: "In other words, [grammatical] aspect *operates on* a certain verb class and cannot eliminate it or change it into another class" (2000: 90, my italics).

2. One of the tests that are used to distinguish states from non-states is whether the verb can be used in the progressive. This is problematic in general, since all English verbs may have a progressive form and since, as e.g. Croft (1998) has shown, any verb may occur in the progressive, given the proper context. Moreover, there is an increasing tendency for states to be used in the progressive by native speakers, albeit in oral or informal language (see Smith 2002). Recent personal observations include *love, hate, want, like, be, have, have to, understand* and *wonder*. It is therefore difficult to assert that a verb *cannot* occur in the progressive and must by consequence be a state, or that a verb is not a state because it can. Some states would then be non-states because they can be, and fairly frequently are, used in the progressive (e.g. *feel, hope*, not to mention posture verbs, e.g. *sit, stand, lie*). Furthermore, this particular study would run into the dilemma of circular argumentation if the progressive were not kept entirely separate from this semantic categorization; it is not fruitful to investigate which verb types may occur in the progressive in a selection of L2 and native-speaker texts, based partly on which verbs may *a priori* occur in the progressive. In other words, it would hardly be a surprise to find that states do not occur in the progressive if the premise is that states are verbs that cannot occur in the progressive (cf. Comrie 1976: 35, Klein 2009: 63).

3. As Dowty also notes, non-stative tests sometimes apply to achievements, such as "only non-statives occur as complements of *force* and *persuade*' (1979: 55), e.g. **X persuaded Y to notice something.* In this example, the simple present does not give a habitual reading either (see tests in section 4.8.2.2), but *notice* may not be used as the complement of *stop* and *finish* and is therefore most likely an achievement. Again, we see evidence for the relation between states and achievements argued in section 3.2 and which is found in Robison's (1995) alternative category 'punctual states'.

4. The basic test to distinguish states from non-states, that non-states have a habitual reading in the simple present, does not apply to the so-called *performatives*, e.g. *promise, order, demand,* where a first person subject performs a *speech act* at the moment of utterance, which

makes the event true-at-the-moment (see Langacker 2001: 11, Taylor 2002: 400); these are nonetheless telic and may therefore be seen as accomplishments, albeit of fairly short duration.

5. Posture verbs (*sit, stand, lie,* etc.) with human (animate) subjects, sound decidedly odd in the simple present, but descriptive as much as habitual. They may also occur as complements of *force* and *persuade* and in the imperative (not only in the accomplishment sense of *sit (down)!*, but also e.g. *hang on!, stand still!*). With all the tests combined, they meet some of the criteria for states and some for activities. Dowty terms these 'interval states', as they have "a *potential* for having stage-properties" (1979: 179, italics in the original) and defines them as "stage predicates" (ibid., 180). As one of Rothstein's criterial features for classification of lexical aspect is [±stages], these may just as well be classified as activities, which we have in fact seen that Shirai (2007) does. In light of prototype theories (Rosch 1973), one may say that these are not prototypical states (or activities, for that matter), yet in a quantitative analysis they must be placed in one of the relevant categories. In this matter I choose to rely on Dowty's classification, as well as Durst-Andersen's (2000) stable/unstable pictures theory, and I therefore consider these VPs states, as does Housen (1995, 2002b, a). However, for the purposes of testing the Aspect Hypothesis, I find that I must comply with convention and, following e.g. Shirai (2007) and Rocca (2002, 2007), they are therefore grouped with activities (except when they occur as phrasal verbs, e.g. *stand up, sit down*, in which case they are accomplishments); the state (or ambiguous) interpretation is reserved for a more fine-grained analysis (section 5.9).

A perfect solution to the problems presented above is perhaps impossible to find, but the methods used in this study have been chosen in order to minimize the risk of erroneous and inconsistent category assignment, and – not least – to ensure maximum transparency. Consequently, the analysis in this project relies on both conventional methods for assigning lexical aspect and a more fine-grained analysis of semantic verb categories. The former approach will be comparable to other studies, but miss out on more complex patterns. The latter will to some extent compensate for this oversight, but yield less material for a full statistical analysis. In addition, full lists of the VP types in the dataset are provided in Appendix E, with their most common aspectual values.

3.4.3 L1 influence?

> '*Human beans is not really* believing *in giants, is they? Human beans is not* thinking *we exist.*'
>
> (Dahl 1982: 23, emphasis in original)

A native Norwegian raised in Wales, Roald Dahl may well have modelled his impression of The Big Friendly Giant's uneducated language on Norwegian learner English. The giant's utterances flourish with progressives, marked by erroneous auxiliary inflections and little sense of semantically appropriate use; state progressives are for instance quite frequent.

Using Jarvis' (2000) criteria (see section 2.2.7.5), it is quite difficult to say anything certain about L1 influence on the basis of learner texts from only one L1 background. It is, however, possible to give some thoughts on how the two languages might interact and how this interaction may be manifested in the use of the progressive. The analysis in chapter 5 will not be able to give conclusive evidence in this respect, but rather give an idea of whether the performance of the Norwegian groups is both internally homogeneous and differs significantly from that of the native-speaker groups. Not least, it is possible to look for usage that systematically resembles the use of the Norwegian constructions outlined in section 3.3.4; together the use of these criteria can tell us whether L1 influence as regards the use of the progressive seems plausible.

Though numerous studies point to universal acquisition patterns in line with the Aspect Hypothesis described above (section 3.4.2), there is some evidence of L1 influence on a more detailed level, as Bardovi-Harlig acknowledges, although in general she finds that "[n]o significant L1 effect has been identified" (2000: 411). In her bidirectional study of the acquisition of English and Italian, Rocca (2002, 2007) finds that English children show a tendency towards underuse of the Italian *imperfetto* with states, whereas Italian children learning English overextend the progressive to states, in line with their understanding of the *imperfetto*. Both groups of children associate the progressive and the *imperfetto* with states and activities, which both express imperfectivity. However, the hypothesized patterns are the first to emerge and L1 influence is evident only at later stages[62] (2002: 179-180). In the same volume, Giacalone-Ramat (2002) finds similar results for adult English learners of Italian. In addition, she attributes the overuse of the *passato prossimo* in German learners of Italian to the lack of grammatical aspect in their L1 (ibid.: 242).

[62] As Jarvis and Pavlenko (2008: 201-203) discuss, L1 influence has been found to be relatively more prominent as both L1 and L2 proficiency increases.

Similarly, Collins describes "a marked increase in overgeneralization of the present perfect" (2004b: 254) in French learners of English as their mastery of past morphology develops. In her comparison of L1 French and Japanese learners of English, she concludes from the differing results that French learner usage is due to L1 effects, whereas the Japanese, who do not have a perfect construction in their L1, display instructional effects (ibid.: 268). A Japanese L1 effect was, however, found in their use of the English progressive; a construction that has a Japanese counterpart. For Norwegian specifically, a master's thesis from 1999 has found L1 effects in the acquisition of the English present perfect, which is similar in form and usage to the corresponding Norwegian construction and thus a candidate for positive transfer. The author claims that, "[d]ue to the facilitating role of the learners' L1, the informants were able to use a feature commonly assumed to be 'late stage' even before 'early stage' features" (Tingstad 1999: 121). It seems that there is reason to believe that L1 effects, however subtle, may be found in learner production of tense-aspect morphology, in learners from various L1 backgrounds.

Returning to the present study, Norwegian and English differ in two ways as regards progressive aspect. The first of these concerns the way progressiveness is expressed *explicitly*. This is explored in detail in section 3.3.4 and will not be repeated here, I will only remark on the possibility of finding L1-like constructions in the L2 data, particularly L1-like use of posture verbs. The second difference lies in the way progressiveness is expressed *habitually*. Though formally straightforward, this difference is more complex, as it involves the contrast between a relatively frequent, highly salient, grammatical structure on the one hand, and an implicit, largely tense-based, semantic distinction on the other. The Norwegian lexical progressive constructions are, as already discussed (section 3.3.4), mainly used to disambiguate the temporal contour of the situation; if the meaning is fairly unambiguous or the ambiguity is unimportant – which is mostly the case – the simple tense[63] is used. For Norwegian learners of English, this means that in all situations where they would use the simple tense in their L1, they must choose either the progressive or the nonprogressive in their English production. As both of these English forms correspond to the Norwegian simple tense, the choice may at first seem arbitrary to the learners; in his study of Dutch and French learners of English – also L1s that lack grammatical progressive marking – Housen (2002b: 159-160) explains this sort of variation in terms of verb forms used as allomorphs rather than the target-language progressive/nonprogressive contrast. Similarly, Kellerman (1997: 288) reports data from an

[63] For the sake of simplicity, other finite forms, such as perfect or modal constructions, are left out of the discussion.

undergraduate thesis, where the progressive is used 'willy-nilly' in many L1 Dutch/L2 English Frog-Story narratives, usually as the narrative default. Again, this is in contrast to target-like usage, where the simple tense is the preferred choice in narratives (cf. section 2.3).

In this choice between the progressive and the nonprogressive, a few factors are potentially relevant:

1. **Tense:** Norwegian is a tense-prominent language and although aspectual distinctions are usually not made explicit, this type of contrast may sometimes be found in the use of tense, which is to some extent used to express the aspectual contour of the situation, in addition to temporal organization. Slobin gives an example of this from a German Frog-Story narrative, where the present perfect is used to describe a complete(d) event ("He **has fallen** down from the tree…"), while the ongoing event is marked by the simple present ("…and the dog **runs** away quickly") (1996: 81); both examples describe elements from the same picture scene. Norwegian is similar to German in this respect and may display the same default, implicit perfective/imperfective contrast between the past and present tense as discussed for English in section 3.2. Since the English progressive is an imperfective construction, Norwegian learners should naturally associate it with the essentially imperfective present tense in their L1, rather than the implicitly perfective past.

2. **Present tense inflection:** Norwegian verbs are inflected for tense only, not for person and number, as is common in many other European languages, including – to some extent – English. Where the English present-tense variation between the unmarked base form and 3rd person singular *-s* may confuse learners, then, *-ing* (without the auxiliary) offers a stable, salient inflection, which corresponds much better to the regularity of the Norwegian present tense morpheme *-(e)r*. By contrast, the English past tense does not differ much from its Norwegian counterpart in its organizational system and therefore presents less of a challenge to Norwegian learners (although the irregular past can be formally difficult to learn). However, this inflectional simplicity may not play a large role in L1 transfer, as simplification is a well-known universal strategy in both L1 and L2 learning and overuse of V-*ing* without the auxiliary is also abundant in early L1 production (e.g. Berman and Slobin 1994: 138).

3. **Psychotypology**: Due to its markedness and overall salience, V-*ing* stands out as a very typical feature of the English language that learners consciously (probably also unconsciously) use to appear more target-like; this has been conveyed to me informally by a fairly large number of Norwegian learners, who also report great surprise at their teachers' instructing them to use this construction less. This phenomenon may be explained by one of Kellerman's transferability

constraints, what he terms 'homoiophobia' – 'fear of similarity' (1997: 282) – where learners avoid crosslinguistic identity because of a perceived or expected distance between their L1 and L2, rather than actual differences. While learners are aware of the two competing forms, the progressive and the nonprogressive (not least since both are taught formally), and use both to some extent, the progressive may nonetheless exert an undue attraction on the learners[64], causing higher frequencies than in comparable L1 texts. If this is indeed the case, progressive/nonprogressive ratios in Norwegian L2-English texts may indicate avoidance and thereby underuse of the simple form, just as well as overuse of the progressive. This effect is not easy to tease apart from salience effects or from the accessibility of the concrete, descriptive progressive, as opposed to the abstract, ideational simple form, but may serve as a contributory explanation.

In short, there are good reasons to look for L1 influence in Norwegian learners' use of the English progressive, but as there is no corresponding grammatical item in Norwegian that can lead to performance congruity, this influence is more likely to act as a reinforcement of other factors, such as salience or the One-to-One principle, than to be seen in the explicit use of L1-like constructions, although traces of the latter may also be found.

3.4.4 Connecting the dots

In chapter 2 and the present one, various theories have been presented as regards both language learning in general and the particulars of the English progressive, with discussions of factors that are relevant for an understanding of the broader usage of this construction, as well as how it is learned. A brief summary of some of these insights should give a clearer, more holistic idea of the proposed learning process for this structure, based on insights from various previous studies and for which confirmation will be sought in an analysis of the data collected for this project. The outline is divided into two sections, presumably roughly corresponding to two (not entirely distinct) parts of the learning process, where the first one concerns form and the second meaning, since it seems that the former must be in place before the latter can be properly established (e.g. Rocca 2002, Collins 2004b).

Form: We have seen that the progressive is a complex construction, consisting of elements that are constructions in themselves; auxiliary BE, a lexical verb and the *-ing* participle. Of these three, *-ing* is a salient, stable and type-wise very frequent component, whereas the auxiliary is

[64] Cf. Halverson's (2007) 'gravitational pull' theory.

highly variable and low in salience. Moreover, *-ing* is, in its capacity as an affix, firmly connected to the verb, where the auxiliary and the lexical verb form a much more flexible, analytic relationship. The learning process therefore consists in connecting these three elements, which are all components of various other constructions, until they are firmly established as one meaningful construction, in accordance with Goldberg's definition (1995: 4, see sections 2.1.4 and 3.1.2). However, due to the aforementioned properties, the *-ing* suffix, and thus the whole V-*ing* construction, is likely to be formally established before the auxiliary is added, as has been seen e.g. in the functor studies that include both of these elements (see section 3.4.1 above). In addition to its overall salience, *-ing* is a form that Norwegian learners of English are familiar with from their L1 and this should facilitate some sort of crosslinguistic identification. The prediction is that until the formal connection between the component elements is firmly entrenched, learners are neither able to acquire a sophisticated understanding of the meaning and use of the progressive, nor to any great extent to distinguish between the various constructions V-*ing* occurs in.

Meaning: In its most basic sense, the meaning of the progressive is fairly easy to establish; both the *-ing* element and the construction as a whole indicate a situation that is somehow ongoing; it denotes a process rather than a complete, specific event or a static situation. Indeed, this is how the structure is usually explained to learners, often with no further elaboration (cf. section 4.4.1). In reality, however, any situation can be construed as ongoing, so the function of the progressive is of course much more complex. If the above prediction is correct, a basic form-meaning pairing between V-*ing* and this notion of ongoingness, or progressiveness, should be the first to emerge and other properties added only later. This is in line with the stages described in Housen (2002b: 162).

Progressiveness is a temporal feature and therefore closely related to other temporal markers, such as tense and lexical aspect. A presentation of these markers, and how they interact with the progressive, was therefore given in section 3.1. The connection between semantic and grammatical aspect is well-known and has been widely explored under the Aspect Hypothesis paradigm, which predicts that form-meaning identification is first based on the inherent temporal contour of the verb phrase. This hypothesis aligns well with other theories, such as the One-to-One Principle and the Distributional Bias Hypothesis. To explore the role of lexical aspect in the acquisition of the English progressive, however, an understanding of the former must be clearly outlined. As the discussions in this chapter have shown, there is little consensus neither as to how many categories of lexical aspect should form the basis of an analysis, nor as

to how the categories should be defined. Even with given classification criteria, there is always some degree of interpretation involved and a need for transparency in the presentation of research results. The view taken in this work is that the four temporal categories presented by Vendler (1957) are highly schematic in nature and must be treated as such. This means that specific instances – verb phrases – and their interaction with other (schematic) temporal categories do not always behave in accordance with the schematic definitions. Learners' treatment of the less typical instances is no less interesting than the general trends and this view will be reflected in the present analysis.

It is argued in this chapter that several factors are at play in L2 learners' emergent understanding of the meaning of the English progressive. This construction must be given a role in a complex semantic system where all syntactic elements contribute to a complete meaning. The progressive thus interacts with tense, lexical aspect, adverbials and other elements (e.g. subject, object, modality, genre) that have not been given much attention here, but which must nevertheless be acknowledged. Learners whose L1 does not have a grammaticized progressive construction must figure out how such a construction should be balanced against the other elements so as to receive the appropriate degree of prominence. To work out one element's place in a complex system is no easy task. Both L1 and L2 learners must learn the entire linguistic system, rather than one clearly delimited category at a time (cf. the discussion in section 2.3), but this is a gradual process where principles are constantly renegotiated and refined (cf. Gopnik's theory theory, section 2.1.3). For L2 learners, the learning process also involves the contrast between two different systems with both differences and similarities. It is only natural that knowledge of the L1 system should be used to seek either rejection or confirmation (crosslinguistic identification) of familiar structures. In the case of the English progressive, L1 Norwegian learners may be able to identify the form of the *-ing* participle, but its function in the English system is likely to be perceived either as something entirely new or as related to similar constructions in their L1, such as adjectival constructions, progressive-like verbal constructions (cf. section 3.3.4), or simply the present tense. My prediction is that the salient progressive is initially associated with tense, which is prominent in Norwegian, as well as lexical aspect (according to the AH), and that progressiveness is a feature that is singled out only later, when target-like tense markers are in place: the present tense is the closest thing Norwegian has to a realization of imperfective aspect and the progressive is initially taught as an alternative present tense form (see section 4.4.1). At this later stage, identification between progressive constructions in the respective languages should also be more evident. The distinction between tense and progressiveness should then facilitate a

redistribution of the *-ing* participle to allow for its use in other distinct constructions. In young learners, this process coincides with factors such as age, cognitive maturation and the development of both L1 and L2 writing skills and genre awareness (see section 2.3.3); the latter is particularly relevant for the progressive, as the frequency of this construction varies greatly with genre.

In sum, the form and meaning of the progressive are both learned gradually and it is likely that L1 Norwegian learners alter their perception of its meaning as the entire construction is established and progressiveness is no longer confused with tense. The acquisition of the progressive is complex, however, and though certain factors are singled out for analysis in this thesis it is recognized that they may only contribute to part of the picture.

3.5 Research questions and working hypotheses

With the progressive construction as the main variable, the over-arching questions asked in section 1.1 are: How do L1 Norwegian learners of L2 English go from learning the *-ing form* to learning the progressive *construction*? Specifically, how do the usage patterns of L1 Norwegian learners of L2 English develop as compared to those of L1 speakers of English? To answer these questions, factors to investigate include to what extent the reported overuse of the progressive in learner language is manifest in my dataset; how usage develops with age and proficiency in L1 and L2 language; and how verb semantics influences the spread of the progressive as a construction, rather than just an *-ing* form. In short, how does the interlanguage *system* change over time, as regards this construction, and what are the factors that influence it? An attempt at answering these questions is made by investigating the following factors, based on the discussions in chapters 2 and 3:

Tense: How likely is the progressive to occur in the past versus present tense, or with no overt tense marker (Ø)? As we have seen, there are several reasons for assuming that the progressive mainly will be associated with the present tense, particularly in L2 learner texts: First, the present tense is seen as "essentially imperfective" (Comrie 1976: 66) and therefore compatible with the progressive, which is a subcategory of imperfective aspect (see section 3.1.1). Second, this compatibility is reflected in the distribution of tense/aspect combinations in native-speaker corpora: Biber et al. (1999: 461-2) report that the progressive is more frequent in the present than in the past tense in conversations – particularly in American English, which is a great source of input for Norwegian learners through television – and in news and academic prose. However, the construction is more frequent in the past tense in fiction, which is the genre

these learner texts fall under. Thus, the more acquainted the informants are with English fiction, the more likely they are to use the progressive in the past tense. Smith (2002), on the other hand, finds that the most noticeable change in the use of the progressive is increased occurrence in the present tense, and if so, young native speakers may also rely more on present tense progressives. The third reason is that the progressive is first introduced to Norwegian learners as an alternative present tense form (see section 4.4.1) and this should then lead to more use in the present. In addition, if learners first learn the bare progressive, i.e. without the auxiliary, this initial instruction should lead them to use the bare form as a present tense marker. The prediction, then, is that younger learners use the progressive in the present or no tense more than older learners and that L2 learners use these tense categories more than native speakers; that all groups use the progressive more in the present or Ø than in the past tense; and that L2 learners use the progressive more than same-age L1 groups. Gender is also looked at, but no prediction is made for this factor.

Lexical aspect: Are the learners in this study sensitive to lexical aspect, as predicted by the Aspect Hypothesis? For this factor it is predicted that both L1 and L2 subjects show patterns that are in line with the hypothesis, as outlined in section 3.4.2, but the patterns are presumably clearer in the L2 groups and the younger groups, since these are that ones that are hypothesized to most strongly associate tense-aspect morphology with lexical aspect. This should be particularly evident in the past tense, as the progressive is reported to compete with the simple past for activities in early learner language (Collins 2004a: 257).

The -ing *form:* If a broad understanding of salience, as outlined by Goldschneider and DeKeyser (2005), leads to an early acquisition of V-*ing* with no or little connection to auxiliary BE, then this early construction should be used quite homogeneously at first, perhaps mainly in progressive-like use or contexts, and only later crystalize into a wider range of constructions. This should be more evident in the L2 than the L1 groups, as they are at an earlier stage in the learning process. Moreover, further evidence for this theory will be sought in the Aspect Hypothesis; if V-*ing* is initially seen as an autonomous construction, then it should behave like the progressive when it comes to lexical aspect and maintain this pattern as it spreads to other constructions over time. If the finite progressive is the prototypical construction for V-*ing*, the next constructions associated with this form should spread from a strong to a weak syntactic connection with a finite verb.

Transfer and conceptual change: Do the L2 texts show any sign of first language patterns as outlined in sections 3.3 and 3.4.3? If so, overall usage is predicted to be more target-

like in the oldest group, with higher levels of proficiency, but there may still be clearer evidence of L1 transfer in this group. L1 patterns to look for in this respect include lexical progressive-like constructions, in particular with the use of posture verbs, and use of noun phrases headed by V-*ing*.

Semantic subcategories: As lexical aspect is difficult to categorize, there will be a detailed analysis of the progressive's interaction with a selection of smaller semantic groups, after an initial overview of usage with the most frequent verb types in the dataset. First, I will look at verbs types that proved problematic to classify into the broad lexical aspect categories (see section 3.4.2.1), such as posture verbs, semelfactives, physical perception verbs and non-English verbs. Second, the progressive is seen as less compatible with telic verb phrases (accomplishments and achievements) and telicity is found to be an important factor in the use of the progressive in native-speaker corpora (Wulff et al. 2009). Therefore a section is devoted to an exploration of whether telicity in the form of physical end points is a relevant feature for the use of the progressive in these learner groups. Third, a small group of verbs called *aspectual verbs* are progressive-like in that they focus on part of a process expressed by V-*ing* or the infinitive; the question is how frequent these constructions are in the dataset. Finally, state verbs phrases in the progressive and other V-*ing* constructions are given special attention, as the Aspect Hypothesis rules out the occurrence of this combination. Following Durst-Andersen (2000), the progressive is predicted to be initially more associated with verbs that represent visually perceptible situations and then spread to other perceptual categories before abstract situations. This is also in line with Slobin's (Slobin 1996) *thinking for speaking* theory (see section 2.3). In addition, the relation between time and space is explored, as space is a more concrete concept than time and therefore likely to be more accessible to learners, particularly young ones. There will therefore be a focus on both spatial and temporal extension, as the former is more easily observed, and in accordance with the partially data-driven approach outlined in 1.5, the analysis in section 5.9 makes use of ad-hoc categories primarily based on the features time, space and telicity. In the analysis, it is also assumed that observable situation types are more salient than abstract ones and that the more extension a situation has in time and/or space, the more salient it is. As space is more concrete than time, it follows that the former is also more salient. All features that in some way make a situation concrete, observable and noticeable, rather than abstract, combine into what I term *referential salience* (see section 3.4.1).

Research questions

For a better overview, the summarized version of the research questions in section 1.6 is repeated here:

1. *Frequency:* The first set of questions relate to the progressive's quantitative position in the verb system; given a finite number of verb phrases in each of the learner texts, what is the proportion of progressive tokens?
    a. To what extent do young Norwegian learners use the English progressive as compared to same-age native speakers?
    b. Are there differences in frequency that correlate with the extralinguistic factors **age, gender** and **proficiency level?**
    c. How does the frequency of the progressive interact with the frequency of the temporal category TENSE in each of the learner groups?
    d. How do the frequencies of the progressive in the present study compare to frequencies in native-speaker and L2-learner corpora reported in other studies?
2. *Semantics:* The second set of questions deals with the relation between the meaning of the lexical item and the choice of formal coding. Although primarily concerned with semantics, these comparisons also involve frequency counts.
    a. Is there a correlation between the use of the progressive and the semantics of the verb phrase, as predicted by the Aspect Hypothesis (cf. section 3.4.2)?
    b. Can the predictions of the Aspect Hypothesis be extended to the *-ing* form in other constructions than the progressive? In other words, do the predictions hold for the *-ing form* in itself or for the *function* of the progressive as the finite verb phrase in a clause?
    c. Are there more specific semantic traits than those represented by lexical aspect categories that can account for the distribution of the progressive in the present dataset? This question is open-ended and the analysis relies on what the data may reveal, rather than theories that have already been set forth (see section 1.5).
3. *The progressive construction:* The third set of questions deals with how the *-ing* form develops into the progressive and other constructions. The progressive and other constructions are compared quantitatively, and in addition, the distribution of *-ing* in other constructions is charted:

a. How does the frequency of the *-ing* form in the finite progressive construction correlate with the frequency of *-ing* in non-finite and even non-verbal[65] constructions (i.e. nouns, adjectives, etc.) in each of the learner groups?
b. In which other constructions is the *-ing* form found in each of the learner groups?

4. *L1 influence:* The last set of questions pertain to the larger theoretical issue of whether or not it is relevant to consider the learners' first language in explaining how a second language is learned.
    a. Is there anything in the material that indicates that Norwegian learners rely on linguistic patterns in their L1? Candidates for such patterns are both formal, as Norwegian has an *-ing* form, and functional, as there are non-obligatory ways to express progressive meaning in Norwegian.
    b. If so, does L1 influence vary over time?

Hypotheses

From these questions, as well as the discussion above, the following hypotheses are derived:

H1: *Language background.* Norwegian learners overuse the English progressive compared to same-age native speakers.

H2: *Age.* If overuse is attested, there is less use in older learners than in younger ones.

H3: *Gender.* This variable is included, but no prediction is made. The null hypothesis is chosen: there are no significant gender differences when it comes to the use of the progressive. The material then has the potential to reject the null hypothesis.

H4: *Proficiency level.* As Norwegian learners attain a higher level of general proficiency, their understanding and use of the progressive will be more native-like.

H5: *Tense.* There will be a strong correlation between tense and aspect coding. Three sub hypotheses are postulated:

5.1 There will be a positive correlation between the progressive and *no overt tense marking* (base forms) in the L2 learners. This effect will subside with increased age and proficiency.

5.2 There will be a negative correlation between the progressive and the *past* tense in all groups.

[65] These terms are explained in section 4.8.2.

5.3 There will be a positive correlation between the progressive and the *present* tense in all groups.

H6: *Lexical aspect.* Norwegian learners of English, as well as young native speakers, are expected to perform in accordance with the Aspect Hypothesis:

6.1 The progressive is first and most frequently used with activities, followed by accomplishments and finally achievements.

6.2 The progressive is not used with states.

H7: Norwegian L2 learners of English initially mainly use *-ing* in finite contexts (defined in section 4.8.2). With increased age and proficiency, *-ing* spreads to other constructions.

H8: There is a negative correlation between the frequency of non-finite *-ing* and the frequency of the progressive.

H9: *Lexical aspect extended*. Other constructions with *-ing* are learned as extensions of the progressive. Therefore the Aspect Hypothesis may be extended to non-finite constructions and yield the same predictions across lexical aspect categories as for the progressive construction.

H10: *L1 influence.* This feature is investigated by means of Jarvis' (2000, Jarvis and Pavlenko 2008) three criteria and requires three different sub hypotheses:

10.1 As the English progressive has no clear equivalent in Norwegian, which could suggest interlingual identification, the null hypothesis is chosen: The groups do not display *intragroup homogeneity*. The material has the potential to reject the null hypothesis.

10.2 A comparison between L2 learners and native speakers will reveal *intergroup heterogeneity*, cf. H1.

10.3 No general *crosslinguistic performance congruity* is expected, but Norwegian learners are hypothesised to use *posture verbs* more often than same-age native speakers. These verbs are part of the so-called pseudo-coordination constructions, whose temporal contour is similar to that of the progressive. This effect is hypothesised to increase with L2 proficiency.

Finally, a more fine-grained analysis of semantic categories is exploratory in nature, in accordance with the partly data-driven approach adopted in this study (see section 1.5) and it is therefore not seen as relevant to set up detailed hypotheses for such an investigation. However, there is an expectation that easily observable situations, with referential salience, will be

compatible with the progressive in the L2 groups, and that telicity will be a factor that discourages use of the progressive. Some of the semantic features that will be considered in the analysis are outlined in section 4.8.3, as well as reasons why they are included.

4 METHODS AND DATA

The present chapter presents the methods and data used in this project and the motivation behind them, as well as an outline of the levels of analysis to be dealt with in chapter 5.

4.1 Research design

The present project is a *quasilongitudinal*, or *apparent time*, study designed to investigate Norwegian L2 learners' use of the English progressive aspect, formally expressed as the construction BE + V-*ing*, over time: Learner data are selected from two different age groups, which are sufficiently similar to extrapolate to a learner group's linguistic development from one point in time to another. Their usage will be compared to that of same-age L1 learners. As stated in chapter 1, it is the aim of this investigation to add to the knowledge of both L1 and L2 development as regards this construction, in terms of both quantitative and qualitative usage patterns. Secondarily, the progressive aspect's relation to other uses of the English V-*ing* form will be explored.

4.2 The Frog Stories

"The Frog Stories" is a data elicitation method first developed by Michael Bamberg and presented in his 1985 Berkeley dissertation (Berman and Slobin 1987: 1). It has since famously been used by Slobin in connection with his *thinking for speaking* theory (Slobin 1987a, 1996, see section 2.3) and it provides the basis for the crosslinguistic study of children's narratives presented in Berman and Slobin (1987). Later a number of studies have been conducted using this method, in a number of languages and for a number of purposes (Berman and Slobin 1994, Stromqvist and Verhoeven 2004). It is thus a well-established method that provides ample grounds for comparison. The method consists in letting informants use their own words in telling a story that is depicted in the children's book *Frog, where are you?* (Mayer 1969) . The story is that of a little boy who has caught a frog, which he keeps in a jar. At night the frog escapes, and the boy and his dog go through many ordeals searching for it, before they finally find both the frog and its family.

The use of the Frog Story offers several advantages, especially as regards the comparability of the texts. The stories will have a very similar content and be of more or less equal length. With the same picture story as a starting point, it is also very likely that many of

the same verbs will be used, and in the same context. This will provide a good basis for comparing and contrasting the use of verb forms, as it shows how the users may take a different perspective on the same events. Thus, the theories of linguistic relativity and thinking for speaking may be explored (see section 2.3). In addition, the restrictions on content will facilitate the interpretation of the texts, which may sometimes be a challenge when dealing with beginner-level L2 learners. For instance, if a word seems strange or misspelt, the context may determine what is meant. An example of this is found in text 1375 (written by an L1 speaker, in fact), where the phrase *hured croceing* is found. Otherwise fairly unintelligible, the puzzle may be solved by a look at the corresponding pictures, together with some knowledge of the relation between English phonology and orthography. The phrase is most likely meant to be "heard croaking".

4.3 Written or spoken material?

Most of the Frog Story research to date has dealt with spoken material[66]. However, there are "many ways to search for a frog", as Slobin (2004: 219) puts it, and, indeed, many good reasons to choose less frequent variations over the same theme. My reasons for using written material are both of a theoretical and a pragmatic nature.

If we take as a starting point that for a linguist the most interesting object of study is naturally occurring language, as opposed to what Tomasello (2003b: 3) refers to as "the "unnaturalness" of written language", then investigating second language learners' development by looking at written texts must seem utterly pointless. Tomasello makes a strong case for studying "[t]he real thing—spontaneous spoken speech… in its own right" (2003b: 5). However, in a literate society, writing is an important part of language learning. This is also the view expressed in Norwegian curricula, where writing is emphasized as one of the "four skills" – reading, writing, speaking and listening – that students should acquire both in their native language and in any foreign language(s) they learn (see e.g. the 2006 curriculum *Kunnskapsløftet*'s section on English). On this background, what Tomasello sees as a problem, "that learning to use a written language…profoundly influences the way we think about language" (2003b: 3), may just as easily be seen as a reason why the study of written language can provide us with valuable insight on language use and development "in its own right". One does certainly not exclude the other.

[66] See Stromqvist and Verhoeven (2004) for an overview.

Another reason why it is important to focus on learners' writing skills is that this is the area where correct usage is most important. In spoken interaction, many factors contribute to the bigger picture. For one thing, non-native speakers will quickly be perceived as such due to their foreign accents, and thus be given more leeway. Also, spoken language generally holds a lower level of formality and there is more room for correcting mistakes and clarifying misunderstandings with the help of interlocutors (see Council of Europe (2001) for a more elaborate discussion of this topic). A written text will usually be submitted in its entirety before the addressee can read it and writer and reader are rarely given the chance to discuss what is meant[67]. It is therefore important to train good writers, and to obtain information about the learning process in this respect.

As for the "naturalness" of written language, it must be presumed that in this electronic age, writing *is* a natural way of expression to most people, in some contexts at least. This is also a matter of degree: Jensen (2008: 179-180) argues that there is a higher level of formality in handwritten than in computer-written texts, and if this is the case, the use of computer elicitation should yield more spontaneous language than if the students were asked to write by hand. The fact that they have limited time to finish their texts will also ensure a higher degree of online thinking, which is crucial to the thinking for speaking theory (see section 2.3).

On a highly pragmatic level, the study of written texts offers advantages for both researcher and subjects. Previous experience with adolescent learners has given reason to believe that they would be quite self-conscious and uncomfortable narrating the frog stories orally in a foreign language, and to a stranger at that, even in private. (This was later confirmed, see section 4.4.2 below). In addition, this would be felt as a very artificial situation, whereas writing stories (from pictures or otherwise) is something they were already familiar with, according to their teachers, and it is thus a "natural" situation – at least in a school context. Given that data would also be collected from L1 speakers, writing the stories would to some extent level out the differences between the groups: The L1 groups have the advantage of being native speakers, but all other factors would presumably be equal: age, level of maturity, years of schooling, writing skills, computer skills, etc. With oral narratives, the native speakers would have the advantage of being used to speaking the language spontaneously and would, unlike the L2 speakers, not have to deal with self-consciousness about their language proficiency, which might impair the fluency and coherence of the texts.

[67] Clearly, this does not apply to e.g. online discussion fora, which will be left out of the present discussion.

Finally, to the researcher the use of computer-elicited written material makes it easier to manage and analyze the texts: The material is already in writing, which eliminates the time-consuming and often challenging task of transcribing each text. In addition, background information is already attached to each text sample. And last, but not least, it is easier to ensure the participants' anonymity (see section 4.4.5 below).

4.4 Informant selection

To study how the usage of the V-*ing* form developed over time, I decided to collect material from both L1 and L2 learners[68] of English at two different stages of learning. The L1 groups were included for the sake of comparison: the intention is to compare L2 usage to the usage of same-age native speakers over apparent time. The different stages are thus based on L2 learners' level and the L1 groups merely follow suit. The first stage should be as early as possible, but for the purposes of this investigation, the learners must have reached a certain level of competence. At the very least, they must be able to produce a somewhat coherent narrative, have some experience with writing in English, and they must have started to use the V-*ing* form (as recently as possible). To allow for noticeable development of the structure in question, there would naturally have to be a few years between the first and the second stage. To find out which age groups would match these criteria, the following methods were used: teacher interviews and a small pilot study. The latter also proved to be very helpful in refining the elicitation technique.

4.4.1 Teacher interviews

The project first intended to collect data from 10-year-olds, in their fifth year of school, with a five-year gap to the next age group, who would be around 15. In Norway, English teaching starts as early as the first year, so this would give the youngest learners four years of exposure before the time of collection, which was estimated to be enough to enable them to produce sufficient data for my purposes. However, an interview with an English teacher at a Norwegian elementary school in September 2006 led to a modification of this estimate, and the information she gave was later confirmed by the other two teachers who participated in the project.

As the project elected to use written material, it was clearly important that the students were trained in writing English. The teacher, however, reported that for the first four years, the focus is almost exclusively on oral English. Written production is stressed only from the fifth

[68] I sometimes use the term "learner" also for the L1 groups, as even the first language is learned gradually and the groups studied here have not yet reached adult competence.

year on. It also turned out that the progressive is not explicitly taught until the end of the fifth year, although the students will have come across this structure due to exposure to authentic texts, written and oral. Other uses of the V-*ing* form are not taught at this level at all. According to the teachers, learners could not be expected to produce enough instances of the progressive until the sixth year. By then, on the other hand, texts usually provide plenty of tokens of this structure. On the basis of this information, it was decided to collect data from sixth graders (10/11-year-olds) instead.

The teachers also provided some information about their teaching of the progressive: As already mentioned, the students are formally introduced to this structure towards the end of their fifth year. Grammar textbooks are not used, but the teacher relies on the national curriculum *Læreplan97* (L97) (Veiteberg, Nasjonalt læremiddelsenter, and Kirke- undervisnings- og forskningsdepartementet 1996) and to some extent *Kunnskapsløftet*[69] (Utdannings- og forskningsdepartementet 2005). At this stage, the progressive is only taught in the present tense and the following simplistic rule of thumb is the only one offered, in the words of one teacher: "Use the *-ing* form when something is happening here and now, and the simple present when something happens rarely."[70] The students' mistakes are corrected according to their level of proficiency, so that no one will receive too much negative feedback, but the teacher stressed that she usually corrected inaccurate use of the progressive. She also pointed out that her students very frequently leave out the auxiliary when using the progressive.

4.4.2 Pilot study

In order to establish the best possible circumstances for eliciting data, it was decided to conduct a small-scale pilot study. Two young girls (L2 learners), one from each of the target age groups (11 and 15), were willing to take the time to write a text each, as well as offer advice from their perspective. After they had written their stories, the procedure was discussed with the goal of finding ways to improve it.

The girls were given hand-outs of the frog story and they were simply asked to look through all the pictures first and then write about them as a continuous narrative. The texts were written on computers and the informants were given the opportunity to ask questions during the process. They were instructed not to worry about spelling, as this was irrelevant to the project.

[69] L97 (Veiteberg, Nasjonalt læremiddelsenter, and Kirke- undervisnings- og forskningsdepartementet 1996) is the curriculum that was introduced in 1997 and which formed the basis of all primary and lower secondary school teaching from that year on. It was replaced by *Kunnskapsløftet – The knowledge promotion* (Utdannings- og forskningsdepartementet 2005) in 2006.

[70] Similar instruction is also offered in German classrooms, according to Niemeier and Reif (2008: 325, 331).

The informants had varying degrees of patience with the project; one insisted on writing the whole story even after being told she did not have to, and spent a whole hour on it. The other gave up halfway through, as she had other business to attend to. As they were writing, it was quite noticeable that going back and forth between the computer and sheets of paper with the pictures on was a bit cumbersome and it was obvious that the project would profit from a method were this could be avoided. This will be elaborated below (section 4.5).

The two girls were then interviewed separately. The 11-year-old thought the workload was quite heavy, but still preferred written over oral elicitation. They both confirmed the suspicion that students would be very self-conscious and reluctant if asked to narrate the story orally in English. (As did the participating teachers.) The 15-year-old did not agree that there was too much to write; she thought the task was "just fine". They both insisted that using computers was much more "fun" than handwriting. We also discussed the option of using a dictionary, on which they had divergent views. One thought it would have been of great help, the other considered it too time consuming and would rather ask a teacher to contribute relevant vocabulary. They agreed that no assistance whatsoever would lead to slower progress; they would get less done if they constantly had to search for individual words.

Afterwards a brief examination of the texts revealed two striking features: First, several instances of the progressive construction were found in both texts but they were much more frequent in the youngest informant. Second, despite identical instructions, the youngest had written the story as a sequence of events, whereas the oldest had given a much more coherent narrative. Two texts certainly form a very slim basis for any conclusions, but this is in line with what the teachers reported. The teacher interviews and the pilot study had thus provided enough information to make the following decisions:

The target age groups were set to 11 (6^{th} grade) and 16 (11^{th} grade), to maintain the five-year age gap originally planned. As will be seen below (section 4.5), the latter would later require some modification, but for the time being it was decided that five years would be a good age gap between the groups of students. Moreover, 16-year-olds were chosen because this is when they will have reached the latter stages of adolescence, an age where they are about to reach adult competence in their respective native languages, and which marks the stage where foreign language learning is held to become noticeably more difficult (R. Ellis 1985a: 68).

The decision to use written material was strengthened, as was the wish to elicit data electronically. In addition, the pilot study had spurred the idea of constructing a web site with all the necessary information, so that the whole process could be conducted online (see 4.5 below). Finally, it was decided to allow the informants to ask teachers about vocabulary they

needed to write the story. Norwegian students are used to consulting dictionaries when writing English, so this would be the most natural situation, but actually having dictionaries would be too time consuming, and might also lead to strange and unforeseen errors, as many fail to distinguish between word classes in the dictionary entries. Better then to have a "live dictionary" that could give them quick answers. However, teachers must be under strict instruction to merely provide word-list type information, i.e. if a student asks how to say, for instance, *han roper* ("he shouts/is shouting") in English, the answer should be: Are you asking about the verb *rope*? – The English word is *shout*.

4.4.3 Selecting participants

For each of the groups, three different schools would be selected, from three different geographic areas. This was done in order to minimize any effects of socioeconomic backgrounds or specific teaching methods on the level of English. One class from each school would yield a total of 60-70 texts, of which hopefully more than 40 could be used in the project. Schools would be selected in Bergen, Norway, and in the San Francisco Bay Area, California, and the material would be collected in careful collaboration with the teachers.

4.4.4 Background information

To make sure that the participants would qualify for the project, and for purposes of data processing, a minimum of background information was needed. As the project deals with four different groups (L1 and L2 in two different age groups; L2 proficiency groups are secondary, cf. section 4.8.1), each text must be labelled for nationality and age. In addition, the students were asked to state their gender, as this will also be a factor in the analysis. Last, but certainly not least, it was important to know a bit about the informants' linguistic background, in order to be able to filter out texts that could not be used. In this project, only Norwegian learners of English with no background in other languages would be allowed in the L2 groups, and only monolingual speakers of English in the L1 groups. This is in order to avoid potential interference from other linguistic systems. It was also decided, upon teachers' advice, that it would be better to filter out the students with plurilingual backgrounds *after* the texts were written, so as to avoid any social stigmatisation (these are often children of low-status immigrants). In addition, it was deemed important that the L2 learners must not interact, or have previously interacted, regularly with native speakers of English, as this could significantly influence their use of linguistic conventions (cf. Jarvis and Pavlenko 2008: 50). Such influence

would also potentially differentiate these learners from others in their group who do not enjoy this kind of regular interaction.

4.4.5 Research ethics

In research involving human subjects, and particularly minors, it is essential to be aware of the ethical side to it. A linguistic project is not as likely to involve sensitive information as, say, an investigation within the medical field. Nevertheless, the subjects must be treated with the utmost respect and there are certain ethical guidelines that must be followed. These guidelines are given by the National Committees for Research Ethics[71]. In connection with the present project, the most important of these guidelines concern consent and anonymity. All material was collected with the informed consent of parents and/or teachers in accordance with current regulations in each of the school systems involved. Care was taken to ensure the participants' anonymity; the only ones who can identify the schools involved are the present author and the participants themselves. This information does not exist in written form. No sensitive information was elicited and no information exists that may link particular texts and individuals.

4.5 Data elicitation – collecting material online

This section deals with the challenges related to data elicitation as regards both technical issues and human interaction.

4.5.1 Creating a web site

The web site was created by AKSIS[72], who, on the basis of the information he was given, constructed a site consisting of the following pages:

1. An introduction with instructions[73] on how to proceed. The full set of written instructions can be found in Appendix A, what follows here is an outline:

- Write about *what you see in the pictures*, in English, as much or as little as you want about each picture.

[71] De nasjonale forskningsetiske komiteer: http://www.etikkom.no/no/Forskningsetikk/Etiske-retningslinjer/ - web site accessed May 14, 2010.

[72] A University-owned research company, which specializes in language technology. See http://www.aksis.uib.no/ I am infinitely grateful to Knut Hofland for all his input and technical support.

[73] All questions and instructions to the Norwegian groups were given in Norwegian, in order to minimize the risk of misunderstandings.

- Do not spend too much time on each picture.
- No use of dictionaries is allowed, but you can ask your teacher about single words.
- Do not worry about spelling.
- Look at all the pictures, then press **Continue**. Fill in the background information, then press "send". A new window will appear where you can write your text. Press **Send** when you have finished writing the whole text.

2. All the pictures from the children's book *Frog, where are you?* (Mayer 1969) in sequence. These should be browsed in order to get an impression of the whole story before looking at the pictures in isolation.

3. A page made up of three parts (see Figure 4.5.1 below[74]). To the left, half the page contained the story pictures in sequence; each of them could be clicked on to be enlarged. To the right, the top of the page had a window with the first picture from the story; if another picture was clicked on, this would appear instead. If the word "next" at the bottom was clicked on, the next picture in the series would appear. In the window below this, informants were asked to provide background information. Once they had filled in the form, they would press the button marked "send", and a blank window would appear, where they were asked to write their text. For the background information, the informants were asked to tick off their gender and age, and to answer the following questions:

- Do you speak any languages other than Norwegian and English? (Options: No *or* Yes, I speak [insert language])
- Do your parents or other close relations have another native language than Norwegian? (Options: No *or* Yes, my mother/father/other speaks [insert language])
- Have you ever lived in an English-speaking country, attended an international school, or for some other reason had English as your everyday language? (Options: No *or* Yes, for □ 1-2 months □ 3-6 months □ 6-12 months □ more)
- Do you have close family or others that you normally speak English with? (Options: No *or* Yes □ daily □ several times a week □ several times a month □ less)

[74] The full set of pictures cannot be displayed due to copyright restrictions.

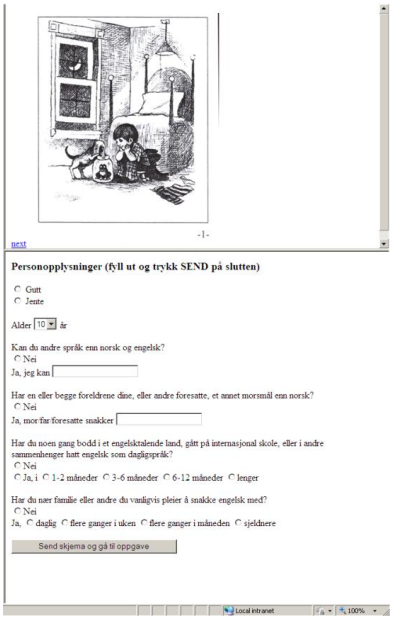

Figure 4.5.1: Screen shot of the right-hand side of page 3 of the web site.

A parallel site was subsequently made with instructions in English, for the benefit of the English-speaking informants. It was also slightly modified to accommodate for the fact that English is their first language: There was no mention of Norwegian or the use of dictionaries, nor any reference to international schools or stays abroad. They were, however, asked to give information about their own or parents'/caretakers' knowledge of other languages than English.

Both web sites require a user name and password before they can be accessed, and these were given to the students as they sat down by the school computers. As the texts were finished, they would be sent directly to AKSIS upon clicking the "send" button.

4.5.2 Data collection

Despite careful preparations, certain aspects of the actual data collection would prove somewhat problematic. All the necessary texts were collected in the end, but for each group there were unforeseen challenges, which led to slight alterations and improvements.

1. *Group 1, Norway (N11)*

The first set of data was collected in the greater Bergen area in September/October 2006. Three schools in three different geographical areas were approached. For the sake of the informants'

anonymity, this will not be specified any further, but care was taken to ensure that different socio-economic strata were represented. All necessary permissions were obtained from principals, teachers and parents, and the project was thoroughly discussed with the teachers in advance. The latter were asked to interfere as little as possible with the writing process; they were only to assist the students if asked. Under no circumstances must they mention the purpose of the investigation. They were also guided through the web site in advance and commented that it seemed very user friendly and that it provided all the necessary information, which was important to establish before trying it out on the students.

At the first school, the students responded well to the task. However, it turned out that the school's computer lab only had computers with very small screens. This made it difficult, although not impossible, to navigate through the pages. This problem was solved by making another version of the web site specifically for smaller screens, for the benefit of the students at the next schools.

At the second school, the screens were large enough and all went well, for the most part. However, this time my presence seemed to be more disturbing than helpful, which led me to conclude that it might be better to rely more on the teachers in the future. Thus at the last school, the teacher and I went through the web site together in detail, so that she would know exactly what to do and how to answer questions, and I was not present when the texts were written.

2. *Group 1, USA(A11)*

Finding schools to participate in the project proved more difficult in California[75]. More than one hundred schools were contacted, most of which did not reply. Some regretfully declined, on the grounds that they simply did not have enough students that met the project's criteria: The majority of the students had such poor knowledge of English that they would not be able to write adequate texts[76]. There were only three positive responses, but they did not yield the desired results.

At the first school, the teachers had hardly been informed about the project, and there were very few children that met the criteria at all. Only about ten were in the appropriate age group, and most of them were bilingual. Only three children could be approved for the project, and they performed the task under my supervision without any problems.

[75] The attempts described below were made during a research stay in Berkeley, California from October 2006 to April 2007.

[76] I found this to be a surprising but interesting fact about the linguistic situation in present-day America, which underlines the importance of studies in L2 acquisition.

The second school had a more homogenous student population and was able to find more than thirty students that met the criteria. However, the teacher had set up our appointment an hour later than she had intended and therefore most of the students did not have the time needed to finish the stories. Given that the test conditions were then different than for the other groups, the texts they wrote could not be used. Despite this, the session proved useful in revealing problems that might arise if teachers and students were not properly prepared. Many students did not pay attention or read the instructions and ended up needing quite a bit of help to get started. Some of them also pressed "send" after writing only one sentence: this was soon afterwards mended by adding a reminder in the text window not to send the information until the whole text was written. As with one of the Norwegian classes, the presence of an unfamiliar person also had a distracting effect. All this took time away from the writing process and on this background a set of instructions were developed to inform teachers of which problems may arise and how to deal with them. In particular, teachers were asked to carefully explain to the students how to proceed before letting them look at the web site.

None of the other schools contacted were willing or able to help, and shortly afterwards I learned that it is very hard to obtain permission to collect data from children in US schools unless one has some kind of personal connection (Dan Slobin, personal communication). It was therefore decided to rely on other resources; people with connections to US schools were asked to contact them on behalf of the project and in this way correspondence with target group teachers in the state of Indiana was established. These teachers were instructed on how to proceed via e-mail correspondence, and the writing was successfully conducted online. In the end, data was collected from two elementary schools; one in California and one in Indiana.

3. *Group 2, Norway (N15)*

Originally, group 2 texts were meant to be collected from students in the 11th grade, aged 15-16. The first class wrote their texts in October 2007[77], but in November of that year, about 60 texts came in from a US high school, written by slightly younger students than anticipated (see below). Given the efforts that had gone into obtaining US material, discarding these would be at the risk of not getting enough texts. This led to the decision of collecting the remainder of the Norwegian texts from 10th graders instead. There were a couple of advantages to this: 1. The Norwegian group would be closer to the US group in age. 2. Grade 10 is the last year all

[77] The data collection was deliberately deferred until then, as this would be the first set of 11th graders who had had their entire schooling based on the curriculum *L97*.

students follow the same curriculum; after this they go on to specialized studies according to their abilities and inclinations.

The texts from the 11th graders were still kept; these were collected early in the school year and the students were thus not much older than the 10th graders who wrote their texts in May the following year. In addition, this was a class chosen from the most common and least specialized line of study (*allmennfag*) at a non-prestigious school, in order to, as far as possible, ensure an average, heterogeneous group of students. All in all, students from three schools participated in this project; two lower secondary and one upper secondary.

4. *Group 2, USA*

These texts were also collected via e-mail correspondence with a class teacher in Indiana, with whom I also established contact via US connections. He was sent the same instructions as the others, and the following criteria for selecting informants were clearly stressed:

- they must all be monolingual speakers of English
- age 15-16 (must not turn 17 this academic year)
- boys and girls equally represented
- otherwise randomly selected, and average as a group though not only average individuals

He guaranteed that his class met the criteria, proceeded with the collection, and reported that all had gone well. It turned out, however, that the students were a year younger than expected; many of them were only 14, though the age range of the class was in fact 13-17. Upon questioning, the teacher said that the 14-year-olds were all on the verge of turning 15 and he did not have any older classes who could participate. As noted above, discarding these texts would be at the risk of not getting enough texts in this group at all. The students were judged to be close enough in age to the target group originally set, so these texts constitute the material for this group.

Below is a tabular summary (Table 4.5.1) of the number of texts collected from each group, the date they were collected, and the number of texts that were deemed acceptable for the purposes of this study. The total number of words written by each group is also included (acceptable texts only).

Table 4.5.1: Summary of number of texts by group and date.

Group	Date collected	Number of texts		Not acc.	Acceptable		Total		Word count
					Boys	Girls	Not acc.	Acc.	
Norway 1	27.09.06 28.09.06 13.-20.10.06	16 23 33	= 72	9 14 4	3 2 15	4 7 14	27	45	9450
Norway 2	09.10.07 05.05.08 Oct. 09 21.01.10	22 25 3 6	= 56	4 7 1 0	6 7 2 6	12 11	12	44	16718
US 1	10.02.07 27.02.07 07.01.08 April 2008	3 36 26 22	= 87	0 36 7 6	1 0 10 7	2 0 9 9	49	38	14044
US 2	09.11.07	63		25	20	18	25	38	15494
Total		**278**		**113**	**79**	**86**	**113**	**165**	**55706**

4.5.3 Data selection

Of the 278 texts submitted, not all could be included in the analysis. As Jarvis and Pavlenko note, "the number of L2 users who end up in the final analysis of one's study is almost always considerably smaller than the number from whom data were gathered" (2008: 57), often because informants do not follow directions or do not meet the selection criteria. Texts that did not meet the project's criteria or for other reasons were not suitable for analysis were thus discarded. Below follows a list of reasons for excluding texts, also summarized in Table 4.5.2 below.

- Linguistic background: All informants who ticked off some kind of bilingual influence or, in the case of the L2 groups, more than usual experience with English, were left out of the final selection. When it comes to language background, the informants must be relied on to provide the necessary information. However, in some cases there are cues in the text that may lead one to suspect that the informant is not a native speaker of his/her L1 group although no other linguistic influence has been listed (e.g. A15:1331, who uses various forms of the verb **to caught*). In such cases it was considered best to discard the text.
- Flawed test conditions: As mentioned in section 4.5.2 above, an entire group of students must be left out as they were given considerably less time to complete their texts than any of the other groups.

- Start over: Many students pressed "send" after writing only a sentence or two, and therefore had to start over again. These incomplete texts were registered, but later discarded.
- Surplus texts/wrong age: In the oldest US group, more texts were submitted than necessary for the project. The L1 groups are not the primary target groups for this investigation and the inclusion of a much greater number of texts in this group than in any of the others would therefore only lead to unnecessary work for the researcher. It was also desirable to keep the average age as close to the corresponding L2 group as possible. Thus, a number of otherwise acceptable texts were excluded in the following manner: All 15- and 16-year-olds were kept, then 14-year-olds were randomly added until there were enough informants of each gender, as well as a balanced number of both ages in each gender group (i.e. not many more 14-year-old girls than boys). It was also decided to use the same number of texts as in the youngest US group. These decisions are in line with Jarvis and Pavlenko, who find that "[h]aving equal-sized participant groups is not always crucial, but when one deals with multiple independent and mediating variables, the results are often easiest to interpret when the levels of each variable are equally balanced" (2008: 57). In addition, one 13-year-old and one 17-year-old were excluded, since they were clearly outside the age range selected for this study.
- Insufficient background information: A small number of students did not provide the necessary background information and their texts could therefore not be used.

Table 4.5.2: Overview of reasons for excluding texts.

Reason for discarding/ Learner group	Linguistic background	Flawed test conditions	Text sent too soon; start over	Surplus texts/ wrong age	Insufficient background information	**Total**
Nor 11	22		5			**27**
Nor 15	7		5			**12**
US 11	4	36	7		2	**49**
US 15	4		2	19		**25**
Total	**37**	**36**	**19**	**19**	**2**	**113**

Although as many as 113 texts were discarded, the remaining 165 texts are judged sufficient for a reliable analysis. Each group is represented with 38 texts or more, a number that is higher than the minimum of 30 per group that Jarvis and Pavlenko report as the consensus in empirical research; for statistical tests, the critical values tend to remain the same after this threshold (ibid.).

4.6 Method of analysis

In all the acceptable texts from all four groups, verb forms have been identified and subsequently listed in Excel files in their actual occurrence – with the original spelling, however faulty – in one column, and all values for the independent variables are entered into the matrix. There is also one column for the verb's word list (infinitive) form and one which provides the verb's context, defined as the row of words between two full stops[78] (see Appendix B: Screenshot of Excel spread sheet). Each verb form has been provided with information about informant background and linguistic context, and is then analyzed and identified as either a finite verb phrase on the one hand, or a non-finite verb phrase or a verb-like form with a non-verbal function on the other. The forms are then coded for several variables. These categories, variables and coding are explained and defined in section 4.8 below. Excel is used for all relevant verb coding and quantification, whereas the statistical analysis is conducted in the statistics program SPSS.

4.7 Analyzing interlanguage

A few lines must be devoted to the challenges of interpreting learner language. The texts at the lowest proficiency levels in particular are sometimes difficult to categorize both formally and semantically. One very obvious difficulty is at the level of orthography, although, as mentioned earlier (section 4.2), this obstacle is often overcome by the visual context the picture story provides. The informants' limited vocabulary may also be problematic, but this mainly restricts the semantic range and complexity of the texts; sometimes, however, attempts are made at using lexical words they do not quite master and this results in either Norwegian words integrated in the English texts or in a strange amalgamation of the two languages, both strategies presumably based on the fact that related languages share much vocabulary (cf. Kellerman 1997).

While the above factors are certainly reason enough to proceed cautiously, the biggest challenge lies in placing linguistic items into appropriate categories. Many of the texts are full of incomplete sentences or constructions and the verb phrases are particularly lacking in this respect. Person, number and tense inflections are often absent and this must by necessity lead to an analysis that is more interpretative than one may desire. To counter this, the categorizations are based on both morphological, syntactic and semantic criteria and the

[78] Learner language can be quite incoherent, so that such a context is only an approximation of a sentence. This decision was made by Knut Hofland for pragmatic reasons.

interpretation that fits these criteria best is chosen, although in some cases the phrase may remain ambiguous. This is all elaborated in section 4.8.2.2 below.

In addition, it is generally agreed that learner language should not be analyzed based on target language linguistic rules. While the comparative fallacy presented in Bley-Vroman (1983) is difficult to work around in a semantic analysis (see section 3.4.2.1), it is less problematic to consider learner distribution of morphology and syntax on its own terms. Bley-Vroman argues that one must look for systematicity (or lack thereof) as it occurs in learner language and not just examine whether it complies with a target language system. For this reason, there is no focus on errors or obligatory contexts in this study; the aim is to find out whether the learners produce the forms in question in any systematic way. If there is such a system, however, the extent to which it differs from a target language system will be described. Any apparent systematicity may also be clouded by the pooled results of individuals; each learner may in fact have an idiosyncratic system or no system at all. A true account of learner language must provide a detailed analysis of each individual interlanguage; this would, however, be an excessively time-consuming task that would most likely not yield generalizable results. Consequently, individual analysis may be very useful in guiding one student, but only group analysis can demonstrate trends that may be useful for teachers or researchers. It must still be borne in mind that these are only tendencies that point to perceptions learners to some extent have in common.

4.8 Analytical categories

The main focus of the analysis is on the use of the progressive construction and this usage is approached from various angles. The progressive is compared quantitatively to the corresponding nonprogressive forms. Much attention is also given to which verbs are favoured by the progressive, particularly in light of the Aspect Hypothesis (see e.g. Shirai and Andersen 1995, Bardovi-Harlig 2000) outlined in chapter 3. Some verbs or verb groups are analyzed in detail due to either frequency, ambiguity or the fact that they illustrate certain semantic categories (see section 4.8.3 below). In addition, the distribution of the progressive construction is related to the use of the English *-ing* form in other constructions. This section presents the analytical categories used to these ends, as well as the methods used for category assignment and the reasoning behind them.

4.8.1 Extralinguistic variables

As stated in section 4.4.4 above, each informant has provided background information that will serve as independent variables. In addition, each informant in this project has been given an informant number to facilitate an investigation of individual differences; this number is used in the multivariate regression analysis outlined in section 4.10.2 below, and serves as reference when examples from the dataset are presented throughout the analysis in chapter 5. The extralinguistic variables in this study are:

a) L1

This project is a study of differences native speakers of English and Norwegian foreign language learners display in their use of the English progressive construction. The two L1 groups are therefore Norwegian (N) and American English (A).

b) Age

The data material is collected from two different age groups for each of the L1 groups. The youngest informants were in their 6th school year at the time of collection and range from 10 to 11 years old. For the sake of simplicity I will refer to them as age 11 from here on. The older groups have a somewhat greater age span, 14-16, where the Norwegian informants are all 15 or 16 and the data is collected from late 10th and early 11th grade. The American informants are all in the same English class, but range from 14-16 years of age, most of them 15 or close to 15. Their ages are not identical, then, but are judged to be sufficiently close or overlapping to be at roughly the same level of cognitive maturity. These groups will be referred to as age 15. When age and nationality are combined, we get a four-way distinction that yields four primary informant groups. These groups are from here on labelled N11, N15, A11 and A15 respectively.

c) Gender

The decision to include gender as a variable is not well motivated in the literature, but as there are some indications that gender may have some general influence on language learning (see section 2.2.5), it was decided to have an open mind and see what the data would yield. The informant groups were already gender balanced and it is widely accepted in sociolinguistics that there are gender differences in language use; such differences may or may not be reflected in the learning process. A first look at the raw numbers for each of the groups (section 5.1), did in fact reveal unexpected differences between the two genders and this variable was therefore

kept through most of the descriptive analysis and included in statistical tests (see sections 4.10.2 and 5.4).

d) Proficiency level

In addition to the information the informants themselves have provided, the texts written by the Norwegian learners have been rated according to the levels set in the *Common European framework of reference for languages* published by the Council of Europe (2001), by trained raters with long experience in work involving these levels. Two raters have assessed each text independently and subsequently agreed on a level placement at a consensus meeting. Following common practice, the L2 groups have been rated by these standardized criteria, whereas the L1 groups are treated as though they are at a homogeneous proficiency level. The Norwegian informants in this study range from "below A1" to B2 on this scale (C2 is the highest level), where the oldest group predictably has the highest average score. Level A1 indicates a learner that can use only very basic words and simple sentences and otherwise for the most part needs to consult a dictionary. At the other end of the scale we find that C2-level learners are at a near-native level, capable of writing flawless, complex and idiomatically advanced texts. Very few L2 learners can expect to reach C2 proficiency; indeed, one of the raters consulted for this project did not deem herself capable of writing a C2-level text, even with a Master's degree in English. The two raters agreed that B2 was the highest level they would normally place a 15-year-old L2 learner at and only occasionally would they come across e.g. a Norwegian-English bilingual with C1 proficiency. In other words, B2 indicates very good writing skills in a young learner.

For all analyses based on proficiency level, two informants have been excluded, as they are not judged to be representative of their respective groups: Only one 11-year-old was placed at the B1 level and was the only one in this age group that was even considered at this level. Similarly, only one 15-year-old was a clear A1 and the only one considered at this level. In addition, levels B1 and B2 are collapsed into one category, henceforth labelled B. The one B2 learner has not been excluded from this part of the analysis; although it was the only clear B2 text, five others were considered for this level by both raters, but ultimately rejected after the consensus meeting. This learner is thus seen as being at the high end of a continuum rather than at a separate level. Throughout the analysis in chapter 5, then, the proficiency groups are as follows: A1 (all 10/11 years old), A2 11 (aged 10/11), A2 15 (aged 15/16) and B (levels B1 and B2; all 15/16 years old).

4.8.2 Linguistic variables

Although the focus of this study is on the progressive aspect, this construction must be analyzed in relation to other verb forms, what many choose to call the *nonprogressive* (e.g. Williams 2002, Niemeier and Reif 2008). Since one aim of the project is to investigate which verbs and verb types do and do not tend to occur in the progressive, all lexical verbs have been extracted from the corpus, regardless of which inflectional/periphrastic form they occur in or which function they fill in the phrase or clause. This means that some verb phrases are listed more than once, if they contain more than one lexical verb. An example of such a double listing would be *starts playing*, where we find the two lexical verbs *start* and *play*. In the categorization of a verb as lexical, the function of the verb is ignored, except in the case of auxiliaries[79]. Thus, in this example, *play* may function as a nominal, but is still included as it is considered an instance of the verb *play* in one of its inflection forms (see discussion in sections 3.1.2 and 3.3.3). As this is a form-based study, all instances of the V-*ing* form have been extracted, and subsequently assigned to the categories appropriate for this study (see below). Following the same principle of form-based data selection, all base forms of the verbs have also been extracted and later sorted into finite and non-finite functions.

4.8.2.1 Form-based approaches and context analysis

Section 3.1.2 introduced the distinction between form-based and function-based approaches to the study of linguistics. Although this is intended as a form-based study, form is not a sufficient criterion in interlanguage analysis. As already noted (section 3.4.1), learners may struggle with both form and function at the early stages of development and unexpected formal realizations of the constructions in question may occur. Still, learner usage should not be dismissed on the grounds that it does not conform to standard analyses; this is the cornerstone of interlanguage theory and is warned against in Bley-Vroman (1983). Following Bardovi-Harlig's (1998) method, I use expected, or probable, function as one criterion; this is important to identify the instances where V-*ing* is used in finite position without an auxiliary, as these are most likely emergent progressives. The occurrence of aspectual forms without tense marking also supports the Aspect Hypothesis in the claim that aspect is primary in verb categorization; if this hypothesis is to be tested in the present project, the same methods must be used as in previous projects for the results to be comparable.

[79] In this construction, *start* may also be interpreted as an "aspectual semi-auxiliar[y] determining the interpretation of the process" (Mair 2012: 812). However, as this verb has a fuller lexical meaning than the primary auxiliaries, it is included among the lexical verbs in this context as well.

Since form is seen as primary in this study, the first step in the analysis is to extract verb *forms* from the texts in the dataset, as described above. Only after the forms are extracted are they sorted into categories based on function. This is the reverse procedure of the one found in e.g. Gujord (2013), where she, in her study of past-tense marking in L2 Norwegian, starts with a *context analysis* to identify obligatory past-tense contexts. Only after these contexts were identified would she "analyse them in terms of grammatical encoding" (ibid.: 157). In this way she was able to introduce correctness as a variable in her study. Gujord's approach limits the material to a finite number of past-time contexts and disregards tokens found outside these contexts. In the present study, on the other hand, all tokens that come (partially) in the same form as the object of study, the progressive, are included. This means that the *post-hoc* categorization may turn out to require categories that were not originally planned as part of the study, as will be seen in 4.8.2.2 below. Context is then considered as a secondary criterion, in order to distinguish between forms that pertain to the construction under scrutiny, and the ones that are only indirectly relevant.

4.8.2.2 Procedure for categorizing the variables

This section explains how the extracted tokens were grouped and classified; this classification thus forms the basis for identifying linguistic variables and explains how they were arrived at. The variables themselves are listed and defined in 4.8.2.3 below.

a) Morphology

The main object of study in the present project is the binary progressive/nonprogressive distinction and the verb tokens were categorized accordingly. However, both variants consist of subcategories and these are broken down here to demonstrate what the numbers of the main categories reflect, along with the criteria for category assignment. In addition, the form-based approach led to an (initially not planned for) analysis of non-finite uses of V-*ing*, contrasted with non-finite uses of the base, or infinitive, form of the verb; these are therefore the main variants of the secondary binary variable in this project.

The verbs were first coded for grammatical/morphological form, as well as classified with regard to finitude: based on general knowledge of the Norwegian language, it should not be controversial to assume that speakers of L1 Norwegian would intend for main clauses and certain subordinate clauses (e.g. relative clauses and *that* clauses) to contain a finite verb. These clauses are then classified as *finite contexts*. All verb forms that occupy the verb slot in these finite contexts were then seen as finite, whether or not they were marked for tense or any other

verbal coding. Next, the finite tokens were grouped according to the morphological and/or periphrastic coding of the verb. The remainder of the tokens received a basic distinction between *-ing* marking and no marking. This resulted in seven different initial categories, five finite and two non-finite:

i) Simple: all lexical verbs in the indicative mode that are realized as a single verb, i.e. without an auxiliary, either in the base form, with third person *-s*, or with the past-tense markers *-ed* or irregular past, in a context where a finite verb is expected.

ii) Progressive: all verbs coded with *-ing*, in finite contexts, whether or not a form of auxiliary BE is present.

iii) *Be going to* + V (BGT): the future marker *be going to* is a special case of the progressive construction and is best analyzed as a semi-auxiliary (Quirk et al. 1985: 143-144). It is, however, a construction that includes the *-ing* participle and consequently relevant for this study. It therefore constitutes a separate category since it cannot be grouped with the progressive proper, as the participle in this case does not function as a lexical verb.

iv) Strange: finite verb constructions that for some reason or other are difficult to interpret and categorize, e.g. *is fals, is listen, has climbing, are chases.* This is in line with Bardovi-Harlig (2000: 243), who terms this group of verb constructions "uninterpretable".

v) Other: all other finite verb phrases that are not coded with *-ing*. These include the perfect construction, passives, do-periphrasis and all other *aux.* + V constructions, both modals and semi-auxiliaries, but not imperatives, as these do not have the potential to occur in the progressive. Imperatives are also mainly found in direct speech, a context that Bardovi-Harlig (2000) has left out of her analysis. This is a rather heterogeneous category, but these constructions are initially grouped together as the progressive is mainly contrasted with the simple form, past or present, since these nonprogressive constructions have the most frequent progressive counterparts, i.e. non-periphrastic forms of auxiliary BE (for corpus data, see e.g. Smith 2002). Other constructions are therefore of quantitative rather than qualitative interest, as examples of nonprogressives.

vi) V-*ing*: all instances of the V-*ing* form not found in finite contexts, regardless of function.

vii) Infinitive: all tokens of the base form of the verb not found in finite contexts, as defined above, regardless of function.

Verb forms that were initially extracted, but not included in the morphological analysis, are imperatives and elliptical forms of modal constructions, such as *can* in *running as fast as he can*. In addition, following Bardovi-Harlig (2000), lexical *be* has after careful consideration

been excluded from the analysis. There are several reasons for this. First, this is an investigation of the progressive aspect and this construction is rarely found with lexical *be*. Only two instances are found in the present corpus[80] and, while interesting in themselves, they are not reason enough to warrant a full investigation of this particular verb. They are, however, mentioned in the discussion of the Aspect Hypothesis (section 3.4.2) and receive separate attention in the analysis of lower-level categories (section 5.9.7). Second, lexical *be* is by far the most frequent verb type in the corpus – 1156 tokens (+ 62 non-finite) – which means that including this verb in the analysis would skew the numbers in all the statistics, particularly when it comes to the contribution of state verb phrases. As Wulff et al. (2009: 358) point out, the overall most frequent verbs are likely to be the most frequent ones in all categories, depending on the size of the corpus; thus, excluding this verb will give a clearer picture of the relative contributions of other lexical verbs. Third, although *be* is the stative verb *par excellence* (or perhaps precisely because of this), it should not be included in an investigation of the Aspect Hypothesis, as it is the least likely candidate to be found in the progressive and, as already mentioned, with its high frequency it would take the attention away from other verbs that are more ambiguous in this context. *Be* is also a highly schematic verb and derives much of its lexical content from the semantic context; its status as a copula makes it behave differently than both transitive and intransitive verbs. Finally, and importantly, the present study should be comparable to other AH studies where lexical *be* has been left out.

After the initial categorization, the verb phrases were coded for tense. This is not as straightforward as it might seem, since many of the learners do not yet master this feature. In addition to the categories *past* and *present*, verbs in the simple form that are not marked for tense are placed in a category called *base* (cf. Bardovi-Harlig 2000). The latter category is rather problematic, since the base, or word list, form is identical to the present tense except in the third person singular. This makes it impossible to know if the verb form is intended as the present tense or if it is an instance of non-mastery of tense inflection, as is common in early learner language (Housen 2002b: 158), especially when the learner tends to vacillate between the past and present tenses throughout the text. To solve this problem in a consistent manner, the verb forms are taken at face value: a base form is considered as such only when it occurs with a subject in the third person singular. In all other instances, the learner is given the benefit of the doubt and the token is classified as the simple present. One reason for this is that Norwegian

[80] Incidentally, this supports the idea that *be* is perceived as inherently stative (cf. the discussion of lexical aspect in chapter 3), since Dowty (1979) classifies several predicate adjectives and nominals as activities (e.g. *be nice, be a hero*); if these were truly activities, they would be more likely to occur frequently in the progressive.

learners seem to find it hard to acquire person and number inflections in the verb system and tend to confuse the inflections, as evidenced by the many instances of *-s* with a plural subject, e.g. *When the boy and the dog sleeps* (1077, girl N11). When the opposite happens, that the plural form is used with a singular subject, this will appear as a base form. On the other hand, a plural subject with a plural present tense form – Ø inflection – will appear to have the proper inflection, whether this was intended or not. It is not up to the researcher to judge the informants' intentions, therefore any apparent success in using past or present inflections is classified as such, whether the result is formally correct or not (e.g. overgeneralized forms such as *catched* or *goed*). Another reason is that treating all non-inflected forms as base forms would mean that the L1 English groups would appear to struggle with tense inflections, which is clearly not the case, as will be seen in chapter 5; data from the two L1 groups must not be analyzed differently, as this would be methodologically quite dubious. The use of the chosen classification system means, however, that the present tense most likely will be somewhat misrepresented; this must be taken into consideration when the results are discussed and is one reason that an overview of all verbal coding is given in section 5.3.3.

Table 4.8.1: Distribution of finite verbs in morphological categories.

Category	base	past	present	total
Simple	492	1688	2530[81]	4710
Progressive	226	164	1018	1408
Modal/semi-aux.	1	113	165	279
Perfect	12	61	91	164
Do-periphrasis	8	64	62	134
Passive	1	27	32	60
Strange	6	2	46	54
be going to	1	14	16	31
Passive progressive	1	4	17	22
Perfect modal		12	1	13
Passive perfect	1		5	6
Perfect progressive		3	2	5
Modal passive		1	2	3
Modal do-periphrasis			1	1
Modal progressive		1		1
Total	**749**	**2154**	**3988**	**6891**

[81] 226 tokens are found with 3rd person singular *-s* in the plural, while 765 tokens correctly have the base/present form in other person/number contexts than the 3rd person singular.

The progressive is similarly subdivided, but in this case the category *base* denotes the bare progressive, that is, cases where the auxiliary is left out; it is therefore not difficult to categorize, as the only criterion is presence or absence of BE. Finally, the different constructions in the finite category *other* are distinguished and marked for tense in the same manner. Table 4.8.1 above shows the distribution of verbs in the finite morphological categories found in this corpus, where tense is treated as a subcategory, in descending order of frequency (the total number of tokens is listed to the right of each tense column). As can be seen from this table, the simple and the progressive are the dominant verb constructions; all others are marginal. To avoid an overly complex analysis and statistical problems due to categories with too few tokens, the above matrix will be reduced to one variable, PROGRESSIVE, which refers to the presence or absence of *-ing* marking in finite contexts. The variable has two variants, *progressive* (PROG) and *nonprogressive* (NON), where *be going to* is grouped with the latter despite its affinity with the progressive. Presence of *-ing* does not necessarily mean that the token is a formal instance of the progressive *construction*, as this requires the presence of the auxiliary as well, but the tokens grouped into this category may be interpreted as representing stages of development from form to construction. Table 4.8.2 below gives the distribution of the two variants of PROGRESSIVE, along with the categories that are grouped into each variant. It is clear from this table that the nonprogressive is much more frequent than the progressive, with almost four times as many tokens. In addition, the tokens with periphrastic forms of auxiliary BE do not add much to the total number of progressives, whereas there are more than 700 nonprogressives in addition to the simple forms.

Table 4.8.2: Distribution of the variants of the dependent variable PROGRESSIVE.

Variant	Includes	base	past	present	total
Nonprogressive	Simple, modal/semi-aux., perfect, do-periphrasis, passive, strange, *be going to,* perfect modal, passive perfect, modal passive, modal do-periphrasis	522	1982	2951	**5455**
Progressive	Progressive, passive progressive, perfect progressive, modal progressive	227	172	1037	**1436**
Total	**Total**	**749**	**2154**	**3988**	**6891**

As for the tokens found outside finite contexts, these were first categorized broadly, as mentioned above. They mainly consist of a single verb form, but there are a small number of instances of compound verb phrases, such as *to be found* and *being chased*. The categories are

therefore further divided into *simple* and *complex*, seen in Table 4.8.3 below. To distinguish clearly between *-ing* found in finite contexts and *-ing* in other constructions than the progressive, the former is from here on labelled ING and the latter PROG.

Table 4.8.3: Distribution of verb forms found outside finite contexts.

Category	base	past	present		total
ING	Simple	655	Complex	14	669
Infinitive	Simple	768	Complex	17	785
Total	Simple	1423	Complex	31	1454

For the purposes of finding the distribution of ING in other constructions than the progressive, this category was further broken down. In the present dataset, ING was found in the following constructions:

1. **Adjectives**, both in attributive use, as in *the speeding deer* (1263: girl N15) or *some **relaxing** music* (1269: girl N15), and in predicative use, as in *But still, no luck, their frog is still **missing*** 1296 (girl A15).
2. **Adverbs** in attributive use, as in *Max is **dripping** wet* (1264: girl N15).
3. **Adnominals**, i.e. as postmodifying clauses in noun phrases. Postmodifiers in adjective phrases and pronoun phrases are also included in this category. Examples include *The boy and dog then notuse* [notice] *the little frogs **jumping out from behind the bushes**.* (1369: girl A11) and *The boy fell down from the tree because it was a owl **living in it*** (1455: girl N15).
4. **Adverbials**: there are three instances of *-ing* used as adverbials of manner, one with an *-ly* suffix added: *The fourth and fifth picture shows the boy **rushingly** putting his clothes on* (1431: boy N15)
5. **Subordinator-headed adverbial clauses**: these are found both with and without an expressed subject, but predominantly the latter, as in ***when discovering the the frog is missing*** (1431: boy N15) and ***Instead of finding Wilbert** he found a moose* (1312: girl A15).
6. **Supplementives**: following Granger (1997), a distinction is made between subordinator-headed adverbial clauses and what e.g. Quirk et al. term *supplementives*. The latter are characterized by "considerable indeterminacy as to the semantic relationship to be inferred" and often function much as the coordinator *and* (1985: 1123). In the data material we find examples such as *Jeffrey and Rufus are outside, **calling for the frog*** (1332: boy A15) and *The boy is screaming out the window, **hoping the frog will come back*** (1261: girl N15).***be going to*** **+ infinitive**: this is not a non-finite construction, but it is included here as its use of *-ing* differs

from the progressive; it is thus relevant as an example of other constructions *-ing* might be found in. Quirk et al. classify it as a semi-auxiliary, a set of constructions "which express modal or aspectual meaning" (1985: 143), in this case "future fulfilment of the present" (ibid.: 215). Examples of this usage include *they **are going to find** the frog end shouting after him* (1136: boy N11) and *Ralphie was scared that Peter **was going to beat** him* (1337: girl A15). *be going to* will not be included in the quantitative analysis of ING, but features in the overview of constructions *-ing* occurs in, in section 5.8.3.

7. **Nominals**: these are subordinate clauses that function as obligatory clause elements, e.g. subject, object or subject predicative; obligatory adjuncts are also included here, as in *go flying, come running*. The function mainly found in the present dataset is direct object, as complement of verbs such as *start, keep, stop, try, like,* etc. Examples of this construction are *The dog keeps **barking at the bee hive**.* (1361: girl A11) and as adjunct in *Doggy tryes to scare the raindeer away, but ends up **falling down on the same place as Fred**.* (1274: boy N15). Only in one instance is it found as subject, in ***leaving them there** is the right thing to do* (1339: boy A15).

8. **Nouns**: in a few cases, ING is used as a pure noun, often with a determiner, as in *a **croaking*** (1302: boy A15) and *some **quacking*** (1054: boy N11).

9. **Uncertain**: this term is used for tokens that are hard to classify due to the nature of learner language. Examples include *An he got **lifting** of a rein deer* (1134: boy N11) and *It is night and the boy decided go to **sleeping*** (1267: boy N15).

From this list, we find that ING is not an exclusively verbal category; it also encompasses contexts where the form does not occupy the verb slot in a clause.

Table 4.8.4: Distribution of ING across constructions.

Distribution of ING		
Construction	**n**	**%**
Adjective	30	4,5
Adnominal	188	27,2
Adverb	4	0,6
Adverbial	3	0,4
Adverbial clause	82	11,9
be going to	31	4,5
Nominal	169	24,5
Noun	18	2,6
Supplementive	158	22,9
Uncertain	7	1,0
Total	**691**	**100,0**

Including these constructions makes the semantic analysis more difficult, as will be seen below, but to form a complete picture of the learners' use of the *form*, examples of non-verbal use, i.e. where the form does not feature as the lexical verb in a clause, cannot be left out. Table 4.8.4[82] above shows us that such non-verbal constructions are marginal in the material; the categories *adjective, adverb, adverbial,* and *noun* make up only 8,1% of the total number of tokens, 55 tokens in all. Nonetheless, this is an issue that must be addressed when it comes to semantic classification.

b) Lexical aspect

The next classification was a semantic one, based on the Vendler's lexical aspect categories, as discussed in chapter 3.

1. Method used

First, a reminder of what characterizes each of the four Vendler classes (adapted from Vendler 1957, Croft 1998, Durst-Andersen 2000):

- *States*: simplex situations that do not involve change, are extended in time, and are atelic; one instant in time represents all
- *Activities*: simplex situations that involve change in the form of progression, are extended in time, and are atelic; one stretch of time represents all
- *Accomplishments*: complex situations that involve change, are extended in time, and are telic; refer to one specific stretch of time
- *Achievements*: complex situations that involve change, are not extended in time (or not construed as such), and are telic; refer to one specific instant in time

To place the verbs/verb phrases in these categories, the analysis takes tests used in acknowledged studies as a starting point. These are diagnostic tests developed for L2 English interlanguage (Shirai 1991; Shirai and Andersen 1995; Bardovi-Harlig 2000):

Step 1: State or nonstate

Does it have a habitual interpretation in simple present?

If no→ State (e.g., *I love you*)

If yes →Nonstate (e.g., *I eat bread*) →Go to step 2

[82] The same information, with distribution across learner groups added, is given in Table 5.8.7, section 5.8.3.

Step 2: Activity or nonactivity

Does 'X is Y-*ing*' entail 'X has Y-*ed*' without an iterative/habitual meaning? In other words, if you stop in the middle of V-*ing*, have you done the act of V?

If yes→ Activity (e.g., *run*)

If no→ Nonactivity (e.g., *run a mile*) → Go to step 3

Step 3: Accomplishment or achievement

[If test (a) does not work, apply test (b) and possibly (c).]

(a) If "X V-ed in Y time (e.g., *10 minutes*)," then "X was V-ing during that time."

If yes→ Accomplishment (e.g., *He painted a picture*)

If no→ Achievement (e.g., *He noticed a picture*)

(b) Is there ambiguity with *almost*?

If yes→ Accomplishment (e.g., *He almost painted a picture* has two readings: he almost started to paint a picture/he almost finished painting a picture)

If not→ Achievement (e.g., *He almost noticed a picture* has only one reading)

(c) "X will VP in Y time (e.g., *10 minutes*)" = "X will VP after Y time."

If no→ Accomplishment (e.g., *He will paint a picture in an hour* is different from *He will paint a picture after an hour;* because the former can mean that he will spend an hour painting a picture, but the latter does not.)

If yes→ Achievement (e.g., *He will start singing in two minutes* can only have one reading, which is the same as *He will start singing after two minutes,* with no other reading possible.)

(quoted from Bardovi-Harlig 2000: 220-221)

Following convention (e.g. Shirai and Andersen 1995, Bardovi-Harlig 1998, 1999, 2000, Rocca 2002, 2007, for an exception, see Robison 1995), this analysis considers the verb phrase in context whenever necessary, except that the tense-aspect morphology that the verb phrases occur with in the material is disregarded and the tests are applied to the verb in its base/infinitive form. Thus, an example such as *The boy **climbed** up in the tree.* (1427: boy, N15) is interpreted from *The boy **climb** up in the tree.* and *The boy **jumping** after the dog.* (1134: girl, N11) from *The boy **jump** after the dog.* This procedure is to ensure that the rater's interpretation is not influenced by the meaning of the tense-aspect morphology itself.

The verb phrase is primarily analyzed within its immediate context – if quite unambiguous, the VP or predicate alone will suffice (see section 3.4.2.1) – but any textual or visual information that can contribute to the category placement is considered, thus the analysis

is to some extent based on a reading of the whole text. If the meaning of the verb phrase is unclear due to poor learner language, the VP is labelled "faulty" and not included in the quantitative analysis. Where the tests fail to give a clear result, the following decisions have been made:

- Semelfactives (e.g. *kick, knock, jump*): Following Croft (1998), and contrary to Rothstein's analysis where these are considered "the minimal event types of activities" (2004: 28-29), semelfactives are classified as achievements, despite the discussion in chapter 3 where they are described as having more in common with accomplishments. This is because, first, these are of such short duration that they are considered punctual in most analyses, notably in the ones that the Aspect Hypothesis relies on and which the present analysis must respect. Second, I see the use of the progressive as related to the presence of an activity component, and short duration indicates little activity to "work on" for the progressive. For the purposes of this analysis then, semelfactives group best with achievements.
- In Dowty's analysis "verb-particle constructions are almost invariably accomplishment verbs" (1979: 71) and the examples he gives are *go out, run away, sit down, dry out*. Bardovi-Harlig (2000) does not state it explicitly, but examples given on pages 302-303 indicate that she agrees. These constructions are therefore given the same classification in the present analysis (unless the context provides clear evidence to the contrary), despite the fact that these situations often have very short duration.
- Verbs of utterance: The examples given in Bardovi-Harlig (2000: 302) – *say, cry* – indicate that these are conventionally interpreted as achievements; this convention is followed here, unless the context indicates a lengthy utterance, e.g. *tell a story*.
- Posture verbs: Following e.g. Shirai (2007) and Rocca (Rocca 2007), these are classified as activities, although the present author is inclined to agree with Dowty that they are states.
- Verbs of perception: In line with Dowty, as well as Vendler's original discussion (1957), these are treated as states when they are ongoing and achievements when they initialize a situation.
- Where the tests listed above yield ambiguous results, additional tests from Dowty (1979) are used. For a complete list, the reader is referred to the original, but the following have been found to be most useful:
    - *Force/persuade*: these verbs cannot be used with states, e.g. **He forced him to know the answer*.

- *Stop* and *finish:* Activities can be complements of *stop*, but not of *finish*; accomplishments can be complements of both; and achievements of neither.
- *In/for* + length of time to distinguish states and activities from accomplishments and achievements: the former two can be used with *for* and the latter two with *in*, e.g. *He ran for an hour* vs. *He returned in an hour*.
- *At* + point in time to determine punctuality and thereby achievements, e.g. *He arrived at two o'clock*.

In the L2 texts, there is a small number of verbs that are either purely Norwegian or a strange mix of English and Norwegian (see section 5.9.8). Examples include *klatre* 'climb', *jage* 'chase', *lete* 'search', *clam* 'hug'(?) (Norwegian: *klemme*), *clabel* 'climb'(?), and *arom avei* 'run away'(?). These verbs are just labelled *faulty* and left out of the semantic analysis, as they are judged to deviate too much from the target language lexical inventory and their meaning can often only be inferred from the context, if at all. They are, however, included in the morphological analysis, as they are sometimes given English inflections and since they contribute to the total number of verb tokens.

2. Lexical aspect in other constructions

As the present study has made a clear distinction between the *-ing* form in finite contexts (PROG) and all other contexts (ING), one of the research questions is whether this distinction has any consequences for the study of the Aspect Hypothesis. In other words, is the distribution of lexical aspect the same or different in other constructions as in finite contexts? While such a comparison seems fine in theory, it is somewhat problematic to operationalize. The reason is that the method described above takes the verb phrase as a starting point, and as we have already seen, not all tokens of ING function as verbs in this dataset. When it comes to non-finite clauses, i.e. subordinate clauses where the lexical verb should not be marked for tense, the procedure described above could be followed without any problems, as the classification always disregards tense-aspect morphology (reasons for this are given in section 3.4.2.1). All base forms in non-finite contexts in this dataset function as infinitives in a clause, and most tokens of ING are also found in clause constructions; these are thus not problematic when it comes to classification. In addition, the seven "uncertain" tokens are clearly verbal constructions, although they do not fit into any of the other categories identified, as in

*Then he looks very happy and **yelling to the gos** or something like that* (1387: boy, A11)

This leaves us with 56 tokens of ING that have been coded for lexical aspect despite not occurring in a verb phrase. In these cases, I have "transformed" the construction into a verb phrase, in most cases intransitive, and interpreted it in the same manner as the other verb phrases in the material. The verb phrase is given a schematic subject where there is no implied subject, thus the following examples yield *someone croak* and *something drip* as the objects of interpretation:

> *The **croaking** sound gets louder.* (1336: girl, A15)
>
> *Max is **dripping** wet*. (1264: girl, N15)

In other cases, there *is* an implied subject and the next two examples may be turned into *The boy **rush** (while putting his clothes on).* and *Sam **bark***.

> *The fourth and fifth picture shows the boy **rushingly** putting his clothes on.* (1431: boy, N15)
>
> *The bees are scared by Sam's **barking**.* (1301: girl, A15)

While this extended method of classification is novel, unconventional, and may certainly be criticized for altering the original learner contribution, or not taking the grammatical restrictions of the original construction into consideration, it is my judgment that it is an adequate way of including the semantics of marginal constructions ING occur in. Moreover, the tokens that are classified in this way are comparatively few, and the analysis of ING does not make any claims to statistical representativeness; to that end, a larger corpus is needed.

4.8.2.3 The variables

Based on the categorization procedure outlined above, four linguistic variables were selected, one dependent and three independent. These are as follows:

PROGRESSIVE

The independent variable in the study is called PROGRESSIVE and refers to whether or not a verb phrase in a finite context is formally coded with the *-ing* morpheme. Note that this is independent of whether or not the morpheme occurs in the progressive *construction*, which is a property of the independent variable TENSE (see below). The reason the variable is nonetheless called "progressive" is, first, that it also includes the full progressive construction,

BE + V-*ing*; in the case of native speakers and proficient L2 learners, this is in fact mostly so. Second, the use of bare *-ing* forms in finite contexts may be seen as the first step towards learning the full construction. The two variants of the dependent variable are labelled PROG and NON.

TENSE

The first independent linguistic variable is labelled TENSE. In addition to VPs in finite contexts that are marked for past or present tense, regardless of whether the marking is formally correct or functionally appropriate, the variable includes absence of tense marking in the same contexts. This gives the variants PAST, PRESENT and BASE. In the case of PROG, tokens without an auxiliary are categorized as BASE, whereas NON tokens are placed in this category if there is no overt tense marking and the subject is third person singular (see section 4.8.2.2).

LEXICAL ASPECT

In accordance with the majority of Aspect Hypothesis studies, the hypothesis is explored on the basis of the original Vendler categories, which make up the four variants of the independent variable LEXICAL ASPECT: activities (ACT), accomplishments (ACC), achievements (ACH) and states (STA).

ING

The category labelled ING serves two purposes in this study. The first one is as an independent variable in a frequency analysis of PROGRESSIVE. As such, the variable is metric and refers to a percentage of the total number of verb forms in each informant text. ING is used as an independent variable in sections 5.3.6 and 5.4.

The second way ING is analyzed in this study is independent of its correlation with PROGRESSIVE. In section 5.8, the use of ING is explored in its own right, first in contrast to the progressive as well as to the base form of the verb, which in the dataset in this study without exception functions as the infinitive. Second, in the analysis of the distribution LEXICAL ASPECT in non-finite-verb contexts, in section 5.8.2, the dependent variable is NON-FINITE, a binary category that refers to all contexts other than the finite ones (where the variable PROGRESSIVE is found). The variants are then ING and infinitive, the latter labelled INF. Third, section 5.8.3 is devoted to the distribution of ING across constructions. Finally, a fine-grained analysis of the verbs used in the dataset (section 5.9) to some extent contrasts the relative frequencies of PROG and ING in the selected verb categories.

4.8.3 Lower-level analysis

As seen from the discussions in chapter 4, lexical aspect as represented by the Vendler categories functions best at a schematic level and may not be as easily applicable at lower levels of schematicity. Some verb phrases seem to defy category assignment as they share properties with more than one of these categories (e.g. posture verbs), some are too dependent on context to determine their aspectual meaning (e.g. *see*), and others yet have a very schematic meaning in themselves (e.g. *be, have*). It is not likely that testing the Aspect Hypothesis will give a fine enough analysis of the development of the progressive; the main contribution of such an analysis would be to support or refute evidence from existing research. For this reason, some of the semantic groups represented by the verb phrases in the data will be analyzed in some detail to give a better idea of which verb meanings align well with the progressive construction in developing L2 interlanguage. These semantic groups have been chosen on the basis of theoretical and empirical research by e.g. Vendler (1957), Dowty (1979), Slobin (2004), Talmy (2000) and Durst-Andersen (2000). Below is an overview of the categories treated in section 5.9, along with the reasons why they have been chosen (these reasons are elaborated in the analysis):

Most frequent verbs

The first category is an eclectic one, and simply consists of the most frequently used verbs in the dataset. These are the verbs that can show the most reliable trends and less frequent verbs may only be used to supplement the findings for this group of verbs. The selection of the subsequent categories are partly based on findings from this analysis.

Posture verbs

As discussed in section 3.3.4, posture verb constructions may be the closest Norwegian equivalent to the English progressive and the use of these verbs may therefore be the primary candidate for crosslinguistic performance congruity (see hypothesis 10.3, section 3.5).

Semelfactives and utterance verbs

The choice to include semelfactives is due to the disagreement in the literature as to whether they should be classified as activities, achievements, or if they constitute a separate category altogether (see discussion in chapter 3). Be this as it may, how the learners perceive this group of verbs is far from clear from the general analysis of lexical aspect and the study will benefit from a closer look at this category. Utterance verbs (where 'utterance' is interpreted in the broadest possible sense, e.g. *say, scream, hush*) are grouped under the same heading as they

often have much in common with semelfactives, in that duration is variable. However, the two categories do not completely overlap, and utterances are included to examine the relevance of auditory salience in the choice of aspectual form.

Movement to and from an end point

While the influence of the presence of adverbials in general is beyond the scope of this study, they nevertheless play an important role in the inclusion of the next category. As *telicity* seems to be one of the defining features of both accomplishments and achievements, its role in the use of the progressive is here explored further. Specifically, the category comprises verbs that denote movement in space, as these may or may not be accompanied by a specification of where the movement starts or ends, to the effect of adding telicity to the meaning of the verb phrase. This way telicity may be isolated as a semantic feature and compared to the use of the same verbs without such restrictive contexts, as far as the number of tokens in the dataset allows. Any differences between the informant groups may then stand out more clearly.

Physical perception verbs

As physical perception verbs, e.g. *see, hear*, *smell*, are among the ones that Dowty (1979) gives dual category membership, a look at the actual verbs may prove more rewarding than to lump them into the larger lexical aspect categories. They are also among the verbs that are often used in the progressive if they "take a human subject as agent […], actively controlling the action (or state) expressed by the verb" (Biber et al. 1999: 473). In such cases they are often classified as activities. Looking at these verbs under one will therefore give some information about the role of subject agency (cf. Ziegeler 1999, see section 3.2.2).

Aspectual verbs and their complements

This small group of verbs (*start, stop, keep, continue, begin, end up*) are included because they feature in constructions that are similar to the progressive in two respects: first, they consist of a tense-inflected verb followed by either ING or INF; the former is thus structurally like the progressive. Second, they denote a situation that is in progress; unlike the progressive, however, part of the situation is highlighted. The analysis will thus look at two things: 1) How frequent are these constructions in the learner material, compared to other constructions with ING? and 2) Which complement type is chosen more often?

State progressives and lexical BE

According to the Aspect Hypothesis, the L2 learners should not produce any instances of state progressives, although Housen (2002b: 166) restricts this to prototypical states. Tokens of state progressives therefore merit strict scrutiny, to explore which specific verb types learners use them with and how widespread they are. In addition, the initially extracted tokens of lexical BE, that were excluded from the main analysis, are here revisited to see whether there are in fact tokens of this verb in the progressive and if so, which contexts they are found in.

Faulty verbs

Finally, the verbs that could not be included in the lexical aspect analysis are treated separately. These are verbs that are either Norwegian, a mixture of English and Norwegian, and/or uninterpretable. The analysis will show whether they are used as PROG; if so, the category may be said to be productive and not a function of exposure to specific verb/morphology pairings.

In this analysis, features I have chosen to investigate on the basis of the discussions in chapters 2 and 3, as well as observations from the dataset, are

1) *telicity* – the role of telicity is explored based on two criteria: the first is ratings of verb-inherent telicity found in Wulff et al.'s study (2009) and the second is the presence or absence of an end point expressed in the immediate context of the verb phrase.
2) *temporal vs. spatial extension* – although situations may have short duration, their extension in space may be quite noticeable, as in *fall down*. This makes it easily observable and thus a candidate for use with the progressive. Conversely, states (e.g. *love*), which are typically incompatible with the progressive, are extended in time, but not space.
3) *agentivity* – both (Biber et al. 1999) and (Ziegeler 1999) point to agentivity as a characteristic of verbs that are common in the progressive, and the role of agentivity will feature in the analysis.

referential salience – this is an umbrella term that covers all sorts of salience related to the referent, the *signifié,* and is thus different from the types of salience described in Goldschneider and DeKeyser (2005). This salience can be anything that is not just easily observed, but stands out as easily perceptible by any one of the senses, though primarily vision. It also includes *manner salience,* which Slobin (2004: 250*f*) uses to describe languages that habitually express manner and not just path; the term is here used to indicate the expression of manner in the verb type.

4.9 Interrater reliability

As seen from the discussion above, coding for lexical aspect is a difficult and necessarily somewhat subjective process, even when detailed criteria are used. There is always room for interpretation as regards the verb phrase's semantic context, both in isolation and in context. To verify that the coding is sufficiently consistent with that of previous studies, a sample of the material – eight different informants, representing all the L1, age and gender combinations, but randomly chosen within these combination groups – was coded independently by a second rater, experienced in research on lexical aspect. She was given the general criteria used in this project, but was not aware of certain decisions made on a more detailed level. These criteria are discussed in section 5.9.

Table 4.9.1: Overview of interrater agreement.

		Rater 1				**Total**
		Achievement	Accomplishment	Activity	State	
Rater 2	Achievement	115	28	2	6	151
	Accomplishment	1	76	4	0	81
	Activity	4	5	60	3	72
	State	3	0	12	37	52
Total		123	109	78	46	356

Table 4.9.1 above shows that the general agreement is quite strong: The cases where the two coders agree are marked in yellow, whereas green indicates disagreement. We see that no VPs interpreted as states by one rater are seen as accomplishments by the other, and vice versa. For the other categories there is more variation and a statistical test is therefore needed to determine whether the agreement is acceptable.

Table 4.9.2 below gives the results from a Kappa analysis which is a test for interrater reliability when the variables are categorical. We see that the results are far from random (count differs substantially from expected count). The significance test has a Kappa index of 0.735 (Kappa = 0.735, $p < 0.001$), and according to Landis and Koch (1977: 165) a Kappa index above 0.7 is considered a substantial degree of agreement between two raters[83]. This means that the agreement in question is acceptable and the analysis can be carried out. However, the fact remains that there is still noticeable disagreement; considerably more than Housen's (2002b: 175) 14% (but around the same level as Tiitanen (2015: 118), who had an agreement rate of 0.718 and 0.783 respectively on two different types of data). In addition, Housen chose to

[83] I am grateful to the other rater for providing me with the statistical tools to evaluate interrater reliability.

exclude all tokens the two raters disagreed on (ibid.), thus, in effect, achieving 100% interrater reliability.

Table 4.9.2: Interrater reliability Kappa index.

Rater 2 * Rater 1 Crosstabulation

			Rater 1				
			Achievement	Accomplishment	Activity	State	Total
Rater 2	Achievement	Count	115	28	2	6	151
		Expected Count	52,2	46,2	33,1	19,5	151,0
	Accomplishment	Count	1	76	4	0	81
		Expected Count	28,0	24,8	17,7	10,5	81,0
	Activity	Count	4	5	60	3	72
		Expected Count	24,9	22,0	15,8	9,3	72,0
	State	Count	3	0	12	37	52
		Expected Count	18,0	15,9	11,4	6,7	52,0
Total		Count	123	109	78	46	356
		Expected Count	123,0	109,0	78,0	46,0	356,0

All in all, the interrater agreement is deemed sufficient to proceed with the analysis. On the other hand, the problematic cases clearly show that lexical aspect classification is a matter of subjective interpretation, even when the raters follow the same carefully constructed set of guidelines, and this underlines the need for a more fine-grained investigation (see section 5.9). However, unlike e.g. Housen, the cases where the raters do not agree are kept in the analysis. There are two reasons for this: First, Rater 2 has only gone through a sample of the data and it is therefore not possible to weed out any disagreement in the remainder of the material. Second, in accordance with the principles of Cognitive Linguistics, non-prototypical instances – the so-called 'fuzzy cases' – should not be left out, as they contribute as much to the whole picture as the clear-cut cases.

4.10 Notes on statistics

"Lies, damned lies and statistics."

- Benjamin Disraeli

The famous quote above serves as a reminder to exert caution when dealing with statistical analysis, as the information we gain from seemingly neutral data is very much influenced by the way the numbers are presented. This section gives an outline of the statistical methods used

in analyzing the data material, as well as the groundwork laid before the material was accepted for statistical testing[84].

Two types of software are used in the analysis; Excel and SPSS: the data are organized in Excel spreadsheets, where the verb phrase *tokens*, which constitute the object of study, are organized in rows. The *variables*, both the dependent variable PROG and the independent variables, are organized in columns and thus provide information about each of the verb tokens. This organization allows for analysis on the token level and is used for much of the descriptive statistics, especially in cases where the number of tokens is too small for reliable significance tests. Tables and figures are then generated in Excel.

However, results on the token level may not adequately reflect usage on the *text* level, as will be seen in chapter 5. As this study primarily investigates *learner behaviour*, rather than language use in general, it is necessary to base the analysis on a more complete evaluation of the individual learner, where each learner is represented by one text; the Frog Story. This means that on this level, observations in the material are properties of the text and not of single verb phrases. Thus when *N* observations are made in the analysis, this refers to the number of texts, or informants, and not to the number of verb phrases. These are usually fixed numbers, i.e. the number of learners in each group, but sometimes they refer to the number of learners who do not use a specific variable at all. For analysis on the text level, as well as all significance tests, SPSS statistics version 22 is used.

4.10.1 Descriptive statistics

A major point of the analysis is to provide comparison with previous studies. Therefore the same data are presented in various ways, so as to facilitate this comparison. This means that the number of progressives is presented both per 1000 words and as percentages of the total number of verb phrases. In addition, observations are aggregated to percentages on the text level, but in this case as percent of the total number of verb phrases in each text. This way each learner contributes equally, with only one unit of observation per text, which is important for the validity of the analysis, especially when it comes to significance testing: It is not possible to interpret textual patterns if we only have information on the word level. In SPSS, then, each row represents one text and the numbers given for each variable are ratios and not raw numbers.

[84] All statistics in the present work, except the interrater reliability test in section 4.9, are suggested and/or approved by trained statistician Elin Monstad (MS in statistics, University of Bergen). She has also carried out the most complex analyses, taking care to teach me these procedures in a detailed and lucid manner. Naturally, any errors in the calculations are entirely my own responsibility.

This is important since the length of the texts – and consequently the number of verb phrases – varies considerably, cf. section 5.3.2. A ratio number avoids the problem of a *spurious relationship*, i.e. a seemingly causal correlation between two variables that may in fact be explained by a third variable; in this case it is likely that the number of PROG increases with the total number of verb phrases.

4.10.2 Multivariate regression analysis

Multivariate regression analysis is a useful, but complex, statistical analysis and care must be taken to ensure that the data is suitable for analysis. The advantage of this type of analysis is that the effect of several different variables can be compared and measured and it is then possible to single out the factors that have the most impact on the dependent variable. There are several steps to this procedure, both in preparing for and carrying out the analysis. The results of the analysis are given in section 5.4, but the preparation is outlined below. The chosen type of multivariate analysis is called Ordinary Least Squares (OLS) and the procedure performed here is based on Midtbø (2007: chapter 8) and to some extent Eikemo and Clausen (2007).

Step 1: The variables are identified

The independent variable in this analysis is the ratio of verb phrases coded for the progressive, given in percentage of the total number of finite verb phrases in each unit; here, the individual text. In the multivariate regression analysis, this variable is labelled *ProgPer*.

Next we have the extralinguistic variables *L1, age, gender* and *proficiency level*, and the linguistic variables *TENSE, LEXICAL ASPECT* and *ING*. The latter is included to examine whether there is any quantitative correlation between the use of the progressive and other constructions with ING on the individual level. For this variable it was hard to choose an appropriate measure at the text level, as the use or non-use of non-finite forms is not a property of the finite verb phrase and can therefore not be counted as a proportion of finite contexts. Counting the proportion of non-finite items would not work either, as the total number of non-finites does not necessarily bear any relation to the number of finite verb phrases. As will be seen in section 5.2, using occurrences per 1000 words as a measure might be misleading in learner texts, so this was also ruled out. For want of a better method, I decided, in agreement with my statistician, to count the total number of verb forms and verb-like forms in a text, finite

and non-finite[85], and then tally the proportion of ING to forms total. This way we get a percentage of all possible contexts for the *-ing* participle, some of which are potential progressive forms and other potential contexts for ING.

Step 2: Recoding

It is more complicated to carry out a regression analysis in SPSS with non-metric (nominal) variables. Consequently these variables were recoded and given metric values:

- The variable *L1* is dichotomous and is relabelled *Nor* and given the value 1 for Norwegian informants and 0 for American informants.
- *Age* is also dichotomous variable, relabelled *A11*[86] and given 1 as the value for age 11 and 0 for age 15
- *Gender* is relabelled *Girl*, as girls are given the value 1 and boys 0.
- *Proficiency level* is divided into four new variables, so as to be given dichotomous values for better analysis: *A1, A2, B*[87] and *Ø* (= native speaker). For each of these, 1 indicates that the text is placed at this level and 0 that it is not.
- The variable *tense* is divided into three new variables, *Base, Past* and *Present,* where the values are given as their respective percentages of the total number of finite verb phrases.
- Likewise, the four variants of *lexical aspect* are also turned into the separate variables *Activities, Accomplishments, Achievements* and *States*, with values accorded in percentages in the same way as for *tense*. Verb phrases that for various reasons could not be coded for lexical aspect are not included.
- Finally, the variable ING is measured in percentages and therefore already metric. It is kept as it is and labelled *NonFin* for the purposes of this analysis.

After this recoding, there are 15 independent variables instead of seven and these can be grouped for an analysis based on *block-wise* selection. This means that variables that for some reason are judged to belong together are grouped in the analysis, e.g. when they are really variants of the same variable in a study, as is the case with the new variables under *tense* and

[85] In this context, non-finite only includes ING and the infinitive, not the *-ed* participle. The infinitive is contrasted with ING in the same way that PROG is contrasted with the nonprogressive.

[86] "A" here stands for "age"; this category is not to be confused with informant group A11.

[87] The B level includes all texts at the B1 level and the one text at the B2 level. This is further explained in chapter 5.

lexical aspect. In the multivariate regression analysis, then, each block is entered separately while ignoring the other predictor variables. Next, the blocks can be added to the analysis one by one, to give an idea of the relative impact of each block.

Step 3: Normal distribution of the dependent variable

In order to carry out a multivariate regression analysis, we need to make sure that the dataset is representative of the population, i.e. that it follows the normal distribution. This is very often not the case in learner data and especially when the values cover a range from 0% to 100%. For the data to be normally distributed, the observed values should mainly be on or around the mean and the rest evenly spread on either side of the mean.

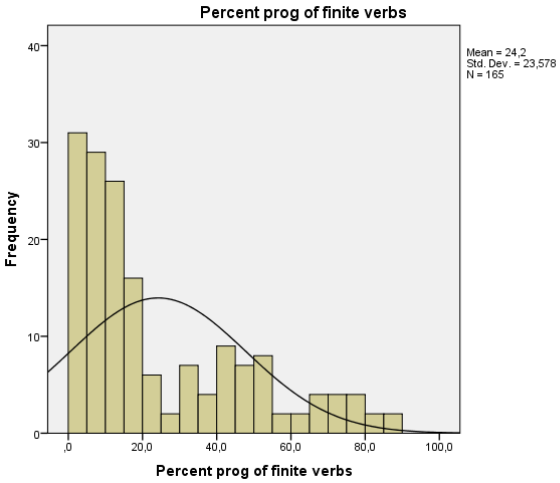

Figure 4.10.1: Histogram showing the distribution of the independent variable ProgPer.

As we can see from the histogram in Figure 4.5.1, this is not the case in the dataset in this study. The x-axis represents the percentage values for the independent variable ProgPer and the y-axis shows how many texts have a certain value, within five percentage point increments. The data clearly do not follow the bell-shaped curve that represents the normal distribution; most of the values are either at or below the mean, while some extremely high values are responsible for raising the mean.

Step 4: Normally distributed residuals

According to Eikemo and Clausen (2007), certain criteria have to be satisfied in order to perform an OLS. The first of these has to do with the normal distribution: The fact that the data are not normally distributed does not mean that it is impossible to carry out a multivariate regression analysis, as long as another criterion is met: the *residuals* should be normally distributed. The residuals are the differences between the observed and the predicted (normally distributed) values. This means that if we take the values that fall outside the normal distribution

and check whether *they* in turn are normally distributed, the data may be said to be representative of the population.

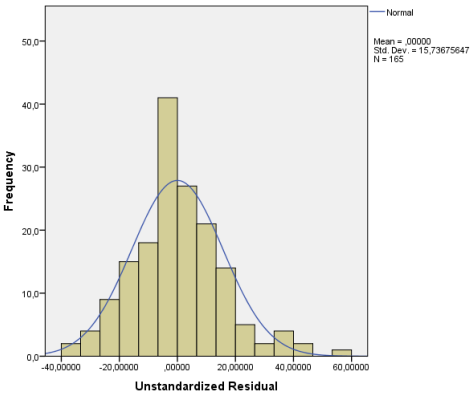

Figure 4.10.2: Histogram showing the distribution of residuals.

Figure 4.9.2 is a histogram that shows the distribution of the residuals. The x-axis sets the mean at ,00000, with negative and positive deviations from this value on the left and right side respectively, in about 6,66667 increments; the y-axis shows the number of texts within each of these values. We see that although the right tail is slightly longer than the left, the residuals mostly follow the normal distribution. The data therefore satisfy this criterion.

Step 5: Absence of heteroscedasticity

Heteroscedasticity means that the variability of a variable is not constant in the population the sample is drawn from; in other words, that the variability follows a pattern along a regression line. This in turn would mean that the model fails in a non-random way, most likely because of a variable that is not included in the analysis. If heteroscedasticity is detected in the sample, there is a great risk that we are dealing with a spurious relationship (see section 4.10.1). To check for heteroscedasticity, a new variable labelled *abs_res_1* is created, which is then tested against the predicted values of the residuals. Figure 4.9.3 below shows how the variability is distributed. Heteroscedasticity is typically characterized by a horizontal cone shape in the scatter plot, a pattern that cannot easily be found in the present data. Instead there is a concentration of values towards the lower left corner. We may conclude that this criterion also seems to be satisfied.

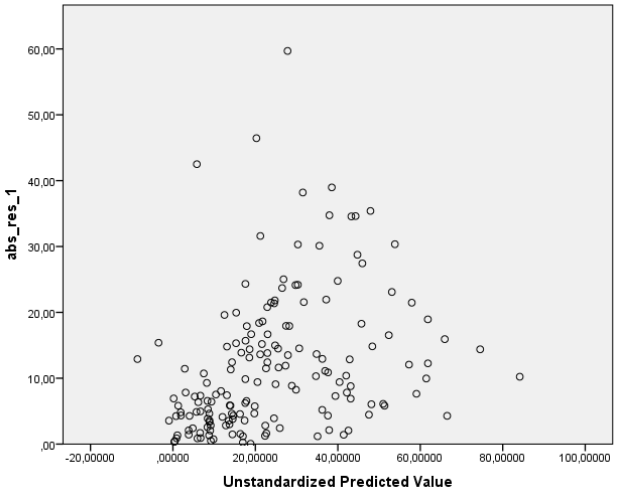

Figure 4.10.3: Scatter plot showing absence of heteroscedasticity

Step 6: Absence of autocorrelation

This feature is understood as a circumstance where the values of a variable correlate with themselves, which is a phenomenon that can sometimes be observed in longitudinal studies. To test for autocorrelation, we run a Durbin-Watson test that measures the dependent variable up against all the independent ones. A result near 2 indicates no autocorrelation. The score for the present dataset is 1.668, which is near 2 and tells us that this criterion is also satisfied.

Step 7: Absence of multicollinearity

Multicollinearity is found in the data if two of the independent variables correlate to such a degree that this has a disproportionate influence on the rest of the analysis. Such a correlation makes it difficult to distinguish between the relative effects of the variables and leads to unclear, or even wrong, interpretations. Multicollinearity is easily found by setting up a cross table of all the variables and using a Pearson's R test. The correlation varies between +/- 1; the closer to 0 the value is, the less the values correlate. The standard cut-off value is 0.8; if the correlation is any higher, we have found multicollinearity. Since the cross table (see Appendix F) does not give any correlations above or even near 0.8, the multicollinearity criterion is also satisfied.

Step 8: Parameter linearity

This criterion has to do with the regression lines in the regression analyses, which should ideally be straight. Normally, the data points will not form a completely straight line, but the important thing is that we can find something resembling straightness, rather than a curvilinear, i.e. U-shaped, formation.

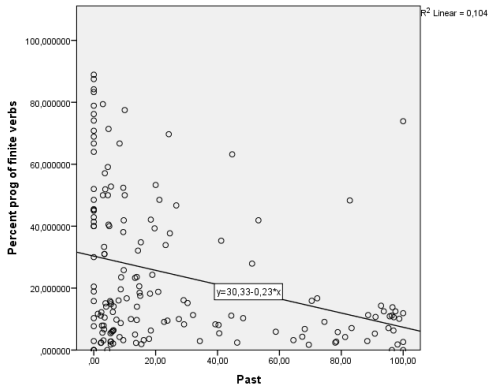

Figure 4.10.4: Scatter plot showing parameter linearity.

To test this, we can create scatter plots for the correlation between the dependent variable and each of the independent ones. An example is given in Figure 4.9.4, where we see the correlation between *ProgPer* and *Past*. The value points far from follow the straight line precisely, but they are not completely off the mark either, and certainly form nothing like a U-shape. None of the correlations proved to be curvilinear and we may be confident that this criterion is also satisfied.

Step 9: Absence of outliers

Larson-Hall defines an outlier as "[a] point or points that do not fit with the rest of the data trends" (2010: 397) and adds that "means can be substantially skewed (biased) by outliers, while medians are not" (ibid.). If there are many outliers in the dataset, they may substantially alter the results of the regression analysis, and the safest thing would be to weed them out before proceeding with the analysis. To determine which values are outliers and whether they skew the data excessively, three tests have been performed.

a) Leverage

This is a method for measuring each unit's potential influence on the analysis. SPSS is used to find the centred leverage values and from these we can create a new variable, *LEV_1*. A box plot is then created to illustrate the spread of these values. This can be seen in Figure 4.9.5 below.

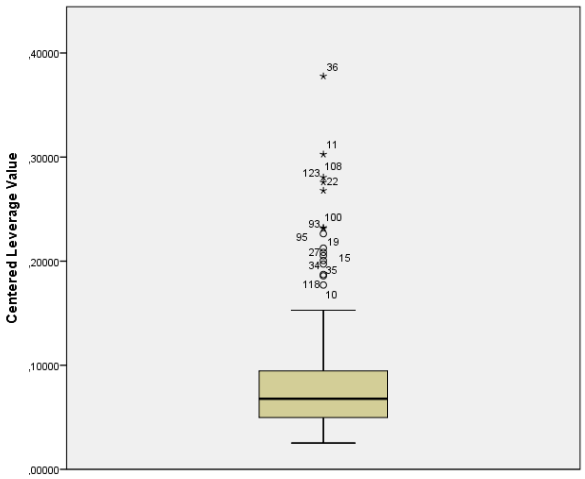

Figure 4.10.5: Box plot illustrating leverage values.

Although there are many outliers, the spread is quite even; only one text is so far removed from the others that it gives grounds for suspicion. However, the fact that it differs from the others is not in itself reason enough to establish that its influence should lead to removal. A closer inspection is needed, and this is done by means of a hat-statistic ***h***, which is the value on the y-axis in the box plot. This value varies between 1/n and 1, and the usual interpretation is that values above 0.5 should be removed and values between 0.2 and 0.5 are somewhat dubious. The outlier in question has a value of 0.378, which is not optimal, but not quite high enough to exclude it from the dataset either.

b) DfBeta

A second way of testing outliers is to measure the effect of each unit on the regression coefficient of each variable. This means that we look at the regression coefficient B, which tells us what the slope of the regression line ought to be, and check how much this slope is altered if we remove one unit. The higher the DfBeta value, the more influence a unit has on the slope; if the value is 0, this means that it has no influence. SPSS calculates the DfBeta values for each of the variables and we can set up box plots for each of them. Figure 4.9.6 below shows a rather chaotic picture, but our interest is only in the units with extreme values. We see that unit 36 is once again our primary candidate, as it is far removed from the others in four of the variables. However, in order to call us into action, the unit would need values below -2.0 or above 2.0, which at somewhere between -1.0 and -1.5 is not the case for our candidate. Unit 68 also deserves a closer look, but with a value slightly above 1.0 for just one variable, there is no need to worry about this one either.

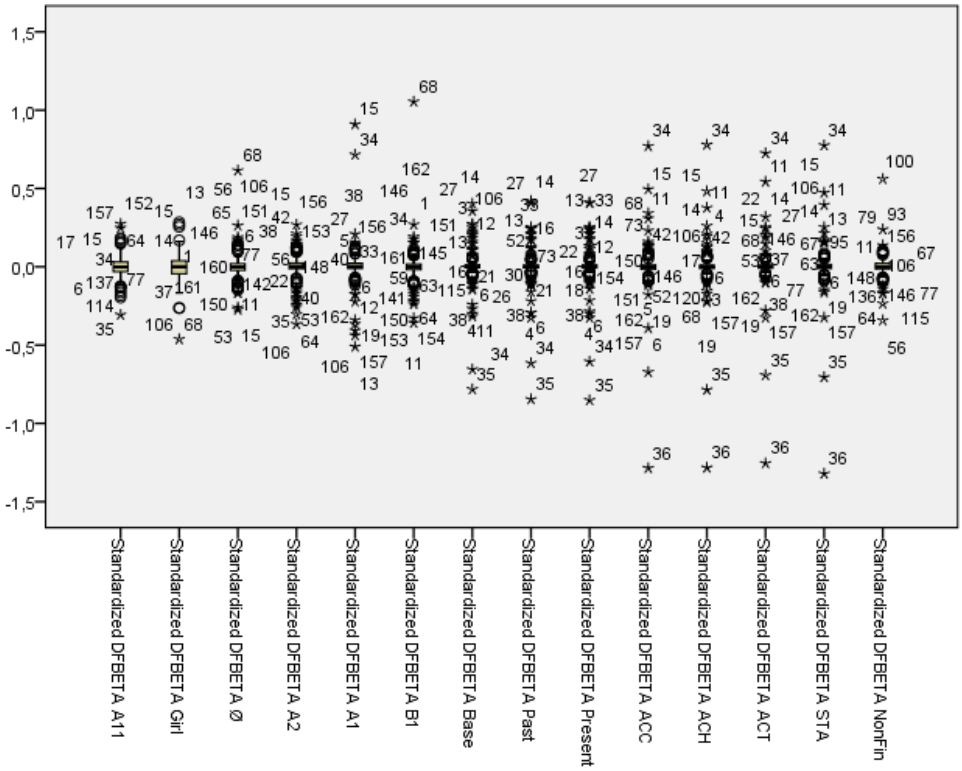

Figure 4.10.6: Box plots showing DfBeta values for all variables.

c) Cook's D

This test measures each unit's total influence on the model. The higher the score a unit gets, the stronger its influence, and anything above 4/n is seen as problematic. With 165 units, a value of more than 0.02 means that the unit has too strong influence on the model. Once again SPSS is used to create a new variable, *COO-1*, which gives the Cook's D value for each unit. In a box plot, then, there should be no units above 0.02. Unfortunately, in figure 5.8.7 we find that three units differ so much from the rest that they have the potential to alter the whole model and two others have high enough values to consider them carefully.

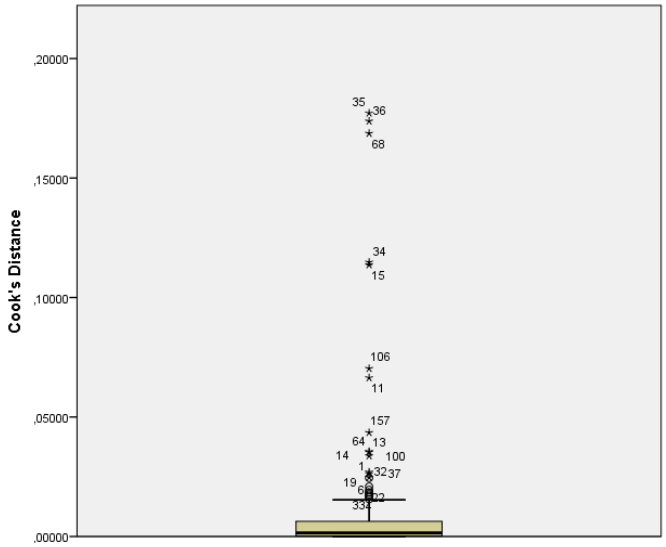

Figure 4.10.7: Box plot showing Cook's D values.

With only 165 informants in the study, removing any from the dataset is not a decision that should be made lightly. Such a low number could in itself be a reason that outliers stand out more clearly. In addition, three of the candidates for removal are Norwegian girls at the A1 level (age 11); this is a group that is already underrepresented. The remaining two are one more 11-year-old Norwegian girl and a 15-year-old American boy. To sort out this difficult question, two parallel analyses were conducted, one where the problematic units were kept and one where they were excluded. This allowed for comparison of the different outcomes in order to decide which version should be presented in the analysis chapter. It would be premature to give the full results from the analysis in this section, but Figure 4.9.8 and Figure 4.9.9 below show the model summaries from each version. The one on the left has all the texts included and the one on the right shows the results when the five units in question are removed.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,756[a]	,572	,532	16,1319

Figure 4.10.8: Model summary, all informants.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,808[a]	,652	,618	13,8308

Figure 4.10.9: Model summary, outliers removed.

We see that without these five units, the effect size (R Square) goes up and the standard error of estimate goes down. This is good and speaks in favour of removing these outliers. However, the differences are not large, and a look at the results for all the variables informs us that from one analysis to another, none of the results go from being significant at the 0.05 level

to not having significance at this level, or vice versa. Since two out of three tests did not give any concerns and all the other criteria for an OLS multivariate regression analysis were met, the decision was made to keep these outliers. The results presented in section 5.4 are thus based on data from the entire dataset.

4.11 Some final methodological considerations

As in all studies, methodological decisions have had to be made, either by choice or by virtue of necessity; sometimes at the expense of other useful approaches, and often due to limited time and resources. This section gives the rationale for some of these decisions.

The first remarks concern the informants included in this study. Ideally, observations of patterns in language usage should be based on a large corpus with a seven-digit word count, rather than the mere 55 700 words in the present dataset[88]. In addition, a higher number of informants, both spoken and written data elicited, as well as several different genres would have given considerably more insight into the use of the progressive. There are several reasons why these things were neither possible nor desirable. The main limitation is the scope of the study; neither time nor resources allowed for an analysis of the magnitude described above. A larger study would certainly have a more solid foundation for any claims based on quantitative results, but would need to rely on a more superficial analysis than the one that is aimed for here, given the available resources. Moreover, the practical problems involved in data collection, as outlined in section 4.5.2, would have made it an even more time-consuming endeavour if more informants, and more material from each of them, were to be included. The difficulties in collecting data from native-speaker informants also meant that it was not possible to ensure, or even control, that different social strata were represented.

There are, on the other hand, some advantages to having a small dataset. A manageable size means that it is possible for one person to go through the data thoroughly and assess each relevant token in context. As Römer points out, using an already annotated corpus is not necessarily an advantage, as the data may then be clouded by other people's judgment and categorizations (2005: 10). Furthermore, the use of not only one genre, but even variations over the same story means that any differences in the use of the progressive are not due to genre variation or radically different vocabulary. Instead, it is possible to consider largely the same high-frequent verbs in the same context and observe how the various learner groups choose to

[88] The number of informants is, however, much higher than in most AH studies, particularly case studies such as Rohde (1996), Housen (2002b), and Rocca (2002, 2007).

encode them, as is done in section 5.9. Thus, potential reasons for any observed differences are reduced to a minimum.

With a relatively small number of informants, the dataset is still presumably as representative as possible, as the schools were carefully selected to that end and not a single one of the selected pupils refused to participate once the schools had agreed. In addition, all texts that met the criteria for participation were included, even the ones with such poor language as to render them near incomprehensible. Including such texts lets me observe the use of the progressive at even the lowest levels of proficiency.

Since one aim of this study is to analyze L2-learner behaviour compared to that of native speakers, it would have been a great advantage to include learners from more than one L2 background, to be able to detect L1 influence using the criteria proposed by Jarvis (2000, cf. section 2.2.1.5). Again, this would involve more time and effort than I have available, but would be an excellent topic for further research.

Next, there are other analytical approaches that might have yielded fruitful results. Many choose to include error analysis in their treatment of interlanguage, even in studies similar to the present one (e.g. Gujord 2013), but as argued in section 4.7 above, the nature of early-stage interlanguage coupled with the relative degree of freedom in the use of the progressive, makes such analysis not only difficult, but also largely irrelevant for the present study. Other variables were considered as well, but ultimately rejected. Some of these have to do with the arguments of the verb phrase; it is not unlikely that the choice of singular/plural, or definite/indefinite, subject or direct object may influence the choice of grammatical aspect, and the use of adverbials seems to be well worth looking into as well, as they contribute much to expressing the interpretation of a situation's temporal contour (cf. discussion in chapter 3). Including these elements as variables would make the analysis even more time-consuming and complex; the role of certain adverbials is nonetheless included in section 5.9.4, but only to examine the role of telicity.

One variable that *is* included, on the other hand, is the use and distribution of the category labelled ING. Not looking at this use might have given room for including e.g. a more thorough examination of the role of adverbials, but in a cognitive linguistic perspective, it was deemed more relevant to examine how the progressive is built up as a *construction*, and how the *-ing* form features in not only the progressive, but other constructions as well. One pertinent reason for distinguishing between the progressive and other uses of *-ing* is that it seems unclear whether such a distinction has been made in previous studies of the Aspect Hypothesis, and thus whether the hypothesis in fact applies to the progressive as a construction or simply to the

-ing form in itself. Robison, for example, quite consistently talks about "*-ing* marking" and gives examples of "progressive marking" in learner language where the context is clearly non-finite, e.g. "my sister […] came to Puerto Rico to *studying*" (1995: 357, italics in original). Even in studies that clearly define the progressive as BE + V-*ing*, there is a lack of consistency: in Johansson and Stavestrand[89] "[a]ll finite verb groups containing an -ing form, except BE + going to constructions, were thus classified as Progressive forms", including examples like "*Yesterday should Paul going to [Paul was going to] buy some meat." and "*He had buying [bought]. (1987: 10, asterisks, underlining and brackets in original). Moreover, they included "apparent efforts at writing a Progressive form", as in "*John bee stand [is standing] there" (ibid.). The present study therefore recognizes the need for methodological rigour and seeks to apply it in both categorization and analyses.

Finally, there is the matter of subjectivity in semantic interpretation. To a large extent, the researcher must necessarily rely on her own intuitions, which may or may not coincide with those of other people. When it comes to classification into lexical aspect categories, this subjectivity is countered by involving a second rater and testing for interrater reliability, as seen in section 4.9. In addition, I have paid careful attention to classifications that have been made in previous research, both theoretical and empirical accounts, and sought to follow their example, but some amount of subjective interpretation is inevitable, particularly when it comes to less used verbs that are not exemplified in the literature. In addition, the fine-grained analysis in section 5.9 considers the semantic profile of individual verbs or categories of verbs, which is also based on subjective interpretation. Again, extensive reference is made to semantic interpretations found in other studies, but the conclusions are entirely my own. Semantics is reputed as dangerous territory where one must tread carefully, and I have entered at own risk.

[89] Not among the AH studies.

5 MANY WAYS TO SEARCH FOR A FROG – AN ANALYSIS[90]

The first part of this chapter outlines the findings from this study in terms of the quantitative distribution of the variants of the dependent variable PROGRESSIVE, with presence and absence of this feature as the relevant variants, labelled PROG and NON respectively. These results are presented in answer to the first of my research questions: To what extent do the learners in this study use the progressive; is it overused at all? Hypothesis 1 (cf. section 3.5) predicts that such overuse will indeed be found in the present dataset, but does not make any claims as regards the magnitude of the difference in production between Norwegian learners and American native speakers.

Next, the distribution is considered in relation to each of the independent variables included in the study and analyses of statistical significance are carried out in order to determine the relative influence of these variables, in answer to the question of which factors contribute to the use of the progressive. The numbers are presented in various ways, in order to allow for comparison with previous studies that have relied on various different measures. In this analysis, there is a distinction between *extralinguistic* and *linguistic* variables, as the latter are considered in light of the former.

After the relative influence of all the variables has been considered on the *text* level, the attention turns to form/meaning pairings on the *token* level. In other words, the linguistic variables are not only seen as isolated factors in the same text; it is just as important to see how they combine in the individual verb phrase. This is further explained below (see also sections 4.8 and 4.10).

5.1 Overview of frequency by verb tokens

Table 5.1.1 below gives a summary of the distribution of all tokens of finite verbs in all informant groups, as well as the total distribution. The summaries in this section will give an indication as to which variables should be used throughout the analysis. As was already evident from Table 4.8.2 in section 4.8.2.2, NON is far more frequent than PROG, although at 20.8%, the total frequency of the latter variant is higher than previously attested in any genre in large native-speaker corpora (see e.g. Biber et al. 1999: 460ff, Smith 2002). It is, however, perfectly

[90] The chapter heading is an hommage to Slobin's (2004) almost identically named article.

in line with the original Frog-Story studies, where the frequency of the progressive ranges from around 38% of all verbs in 3-year-olds to about 12% in adults (Berman and Slobin 1994: 138)[91].

Table 5.1.1: Distribution of finite verb forms: All informant groups; group scores.

	NON	PROG	n (100%)
	n (%)	n (%)	n (100%)
Nor	**2384 (72.8)**	**891 (27.2)**	**3275**
11	**804 (61.7)**	**499 (38.3)**	**1303**
Boys	327 (57.5)	242 (42.5)	569
Girls	477 (65.0)	257 (35.0)	734
15	**1580 (80.1)**	**392 (19.9)**	**1972**
Boys	769 (84.2)	144 (15.8)	913
Girls	811 (76.6)	248 (23.4)	1059
USA	**3071 (84.9)**	**545 (15.1)**	**3616**
11	**1475 (84.2)**	**277 (15.8)**	**1752**
Boys	544 (79.5)	140 (20.5)	684
Girls	931 (87.2)	137 (12.8)	1068
15	**1596 (85.6)**	**268 (14.4)**	**1864**
Boys	763 (83.5)	151 (16.5)	914
Girls	833 (87.7)	117 (12.3)	950
Total	**5455 (79.2)**	**1436 (20.8%)**	**6891**

The first research questions asked to what extent young Norwegian learners use the English progressive as compared to same-age native speakers, and whether any differences would correlate with the factors age, gender and proficiency level. H1 predicted that Norwegian learners overuse the construction; H2 that older learner would use the progressive less than younger ones; and H3 that there are no significant gender differences.

An initial comparison of the various groups shows that, first of all, the expected differences between native speakers and L2 learners are attested in this dataset; the significance of the differences will be tested in section 5.4. The Norwegian informants use PROG in 27.2% of all possible contexts, whereas their American peers display a much more modest use at 15.1%. This difference seems to be largely age-related, in accordance with H2, as there is a greater difference between Norwegian 11-year-olds (38.3%) and 15-year-olds (19.9%) than between L1 and L2 speakers. Such a discrepancy is, however not found between the two American groups, where a difference of 0.7 percentage points must be considered marginal. More unexpectedly, all four age/nationality groups show noticeable gender differences,

[91] In Berman and Slobin, the total amount of *–ing* forms is given as percent of all lexical verbs and subsequently broken down into progressives and nonfinite *–ing* forms; the percentages presented here are therefore only an approximation of the progressive/nonprogressive ratio in finite contexts, as the number of other nonfinite forms is not known.

contrary to H3 (although we do not yet know if the differences are significant): There are gaps ranging from four to almost eight percentage points between the two genders in all four groups. In addition, the 15-year-old Norwegians stand out in that the girls use PROG more frequently than the boys; in the other three groups, the situation is reversed. The information in this table tells us that, so far, all these extralinguistic variables are worth pursuing further, in the subsequent analysis in this chapter.

Next, Table 5.1.2 shows a different distribution within the L1 Norwegian group. Here the variable *proficiency level* is added and given prominence; this variable is unfortunately not available for the native-speaker groups, as discussed in chapter 4, but provides valuable information about L2 learning nonetheless. For this extralinguistic variable, H4 predicts that usage will grow more native-like as the learners attain a higher level of general proficiency.

Table 5.1.2: Distribution of finite verb forms: Norwegian proficiency groups; group scores[92].

	Nonprogressive	Progressive	Total n
	n (%)	n (%)	n (100%)
A1	**176 (62.2)**	**107 (37.8)**	**283**
11	**148 (59.2)**	**102 (40.8)**	**250**
Boys	47 (81.0)	11 (19.0)	58
Girls	101 (52.6)	91 (47.4)	192
15*	**28 (84.8)**	**5 (15.2)**	**33**
Boys	-	-	-
Girls	28 (84.8)	5 (15.2)	33
A2	**996 (62.3)**	**604 (37.8)**	**1600**
11	**605 (60.4)**	**396 (39.6)**	**1001**
Boys	280 (54.8)	231 (45.2)	511
Girls	325 (66.3)	165 (33.7)	490
15	**391 (65.3)**	**208 (34.7)**	**599**
Boys	176 (73.3)	64 (26.7)	240
Girls	215 (59.9)	144 (40.1)	359
B1	**1145 (86.5)**	**178 (13.5)**	**1323**
11*	**51 (98.1)**	**1 (1.9)**	**52**
Boys	-	-	-
Girls	51 (98.1)	1 (1.9)	52
15	**1094 (86.1)**	**177 (13.9)**	**1271**
Boys	526 (87.1)	78 (12.9)	604
Girls	568 (85.2)	99 (14.8)	667
B2*	**67 (97.1)**	**2 (2.9)**	**69**

We see that with higher proficiency, the use of PROG goes down. The clearest difference is between levels A1 and A2 on the one hand and level B1 on the other, with a fall

[92] Categories marked with an asterisk (*) are only represented by one informant and the numbers therefore do not have any general validity. The one at the B2 level is a 15-year-old boy.

from 37.8% to 13.5% PROG respectively. This represents a greater gap than that between age groups when proficiency is not considered, and at 4.9 percentage points, the difference between the age groups *within* the A2 level is small enough to be likely to be random. These numbers can be taken as an indication that proficiency level is a more important factor than age. However, only at level A2 does it make sense to discuss age differences, as this is the only level where both age groups are adequately represented; at the A1 level there is only one 15-year-old; only one 11-year-old has reached proficiency at the B1 level; and out of all the informants, only one, a 15-year-old boy, is placed at level B2. This shows that there clearly is a certain correlation[93] between age and proficiency level, as would be expected when the amount of formal training correlates with age. Gender differences are found in these groups as well, but they follow no apparent pattern; this is likely to be due to the small number of informants in each group as well as the uneven number of informants in these groups. In conclusion, proficiency level also seems to be a variable worth pursuing further.

As far as the question of overuse is concerned, we so far find that Norwegian learners follow the same developmental pattern as in Berman and Slobin's (1994: 138) original study, where the use of the progressive goes down dramatically with age and, presumably, language proficiency. Bearing in mind the difference between oral (Berman and Slobin) and written production, the results from the present study indicate that – frequency-wise – Norwegian L2 learners at the A1 and A2 levels perform on a par with 3-year-old native speakers, whereas learners at the B1 level have a frequency comparable to that of adult native speakers, as far as this particular task is concerned. Whether this should be considered overuse seems to depend on what can be expected at different levels of proficiency. We will return to this question in relation to the analysis of the linguistic variables in the sections below.

5.2 Overview of frequency per 1000 words

Another way of determining the frequency of the progressive is to look at the ratio of progressives per 1000 words, as is done in e.g. Axelsson and Hahn (2001) and van Rooy (2006). This measurement may seem as good as any, but does not take into consideration the fact that language users may vary considerably in their production of textual elements. Some may use plenty of elaborations, such as adjectives, adverbs, prepositional phrases and non-finite clauses, whereas others may leave out such elements, whether consciously for stylistic reasons or due to a lesser command of the language. L2 learners, as well as young native speakers, have yet to

[93] Not tested here; all significance testing is shown in sections 5.4 and 5.7.

reach their full potential in this respect. For this reason, differences in a count per 1000 words may reflect other issues than the choice of aspectual coding, and this method is therefore mainly rejected as a reliable tool in the present study. Nevertheless, with these objections in mind, it is still useful to present such a count from the texts in this study, to allow for comparison with studies that rely on this kind of measurement. Such a comparison may offer a partial answer to the question of overuse.

In his study of progressives in Black South African English (BSAfE), van Rooy (2006: 47-48) compares the frequency of the progressive across several large learner- and native-speaker corpora. These numbers are rendered in Table 5.2.1.

Table 5.2.1: Frequency of the progressive in learner- and native-speaker corpora (van Rooy 2006).

Corpus	Words total	Progressives	Prog/1000 words
TLE Tswana learners of English	186,450	1,281	6.87
LOCNESS native-speaker students	202,923	751	3.7
GLE German learners of English	238,980	683	2.86
ICE-SA professional writing	61,403	140	2.28
ICE-GB professional writing	172,271	296	1.72
ICE-SA private spoken conversation	206,451	1,233	5.97
ICE-GB private spoken conversation	206,548	1,759	8.52
Xhosa-English conversation	540,000	5,273	9.76

From this table we see that there is a great difference between spoken and written English in the International Corpus of English (ICE), both in Great Britain (GB) and South Africa (SA). The South African spoken variant, Xhosa-English, also has a high rate of progressives, at 9.76 per 1000 words, while the South African written corpus, TLE, has the highest frequency of the written corpora, at 6.87. In comparison, adult German students have a lower frequency than native-speaker students, and not much higher than native-speaker writers. Van Rooy explains the South African results with L1 influence, as these learners transfer their native-language semantic patterns to their use of the progressive, thus providing an outer-circle extension of the meaning of this construction.

In a Northern European context, Axelsson and Hahn (2001: 10-11) also list the frequency of the progressive in several advanced learner corpora and find that they range from 2.3 per 1000 words (Finnish learners) to 3.6 (German learners), with Swedish and Finnish-Swedish learners in between, at 2.9 and 3.1 respectively. This is somewhat more than British

students (2.0), but less than American students (4.6)[94] (ibid.). In other words, at an advanced stage of learning they do not find evidence of the reported overuse; only some instances of inappropriate usage.

Table 5.2.2 below shows considerably higher frequencies in the learner groups in the present study. The Norwegian boys use the progressive 60.44 times per 1000 words, which is more than six times as frequent as in spoken Xhosa-English. The other groups are not quite as extreme, but they all have a higher use than in any of the adult corpora; even the 15-year-old American girls, who have the lowest score of all the groups, have 14.36 progressives per 1000 words. This may be evidence of less complex language than in the adult corpora, but would have to be examined further in order to draw any such conclusions. However, the main patterns are the same as when the group scores are measured in terms of percentages of total number of verb phrases; L2 learners use the progressive considerably more than same-age native speakers, with the exception of 15-year-old boys, where the frequency is in fact slightly lower in the Norwegian group than in the American one. The same gender differences are also apparent, with boys taking the lead in the use of the progressive compared to girls in the same group, once again with Norwegian 15-year-olds as an exception.

Table 5.2.2: Distribution of grammatical aspect and ING per 1000 words: all groups.

Group	PROG/1000 words	ING/ 1000 words	Words total
Boys N11	60.44	1.75	4004
Girls N11	47.19	1.1	5446
Boys A11	25.71	19.47	5445
Girls A11	15.93	14.77	8599
Boys N15	18.53	14.93	7771
Girls N15	27.72	10.17	8947
Boys A15	20.56	13.89	7344
Girls A15	14.36	12.88	8150

Included in this table is an overview of the same groups' use of the non-finite variable ING, as it was hypothesized in H7 (section 3.5) that learners initially view the *-ing* form as exclusively belonging to the progressive construction – in other words as a finite verb form – and then gradually expand the use to other, non-finite contexts. Occurrence per 1000 words is a good measure for this variable, as the use is not necessarily related to the total number of verb phrases. Unlike grammatical aspect, where the choice of aspect form must be made for every

[94] The difference between British and American students is interesting in itself; the results from the L2 learner corpora might suggest more influence from American than British English.

single verb phrase and in all main clauses, ING constructions are mainly optional elements in a finite clause and it is perfectly unproblematic to write a coherent text without a single token of this variable. This measure, then, shows how often ING is chosen in a certain amount of text, compared to the frequency of the progressive by the same calculation.

At the group level, the results seem to support the hypothesis; the Norwegian 11-year-olds, with their excessive use of the progressive, hardly use ING in other constructions at all, with less than two per 1000 words. Boys use them more than girls, but with such low numbers to begin with, gender differences must be considered marginal. This is in stark contrast to their American peers, whose use of ING is nearly as frequent as the progressive. Girls have a lower number than boys, but at 14.77 per thousand words, it approaches their already low use of the progressive. The boys use it as often as 19.47 times per 1000 words and thus seem to have an affinity for these other uses, although their use of the progressive is also fairly high, at 25.71. We can assume that their capacity for complex language in general does not surpass that of the Norwegian learners, so that the difference lies in the linguistic competence of L2 learners versus native speakers.

In the older age groups we find a high frequency of ING in both L2 learners and native speakers. The progressive is still the preferred *-ing* construction, but the difference between the two is much less striking than in the youngest Norwegian learners. The Norwegian boys have a slightly higher frequency of ING than the native speakers, at 14.93, but their use of both this variable and the progressive is so close to their American counterparts that the usage can be considered nativelike, at least in terms of frequency. The girls, on the other hand, use the progressive almost three times as often ING, and thus seem to be less comfortable with the latter variable. This is not to say that usage has not increased compared to the younger group; at 10.17 per 1000 words, their use is still nearly ten times as frequent that of as 11-year-old Norwegian girls and approaching that of American 15-year-old girls, at 12.88.

While the use of ING increases with age in the L2 learners, we see the opposite trend in the native-speaker groups: Occurrence per 1000 words declines with age, especially as far as the boys are concerned, from 19.47 to 13.89. Again, this may be due to language complexity; a topic which might form the subject of a separate study, but will not be dealt with further in the present thesis.

Table 5.2.3 below shows the corresponding numbers for the different proficiency groups. For the progressives, we naturally see the same steady decline as with frequencies calculated as a ratio of total number of finite contexts. The A1 and A2 levels have roughly the same frequency, at around 50 per 1000 words, and this drops dramatically to 15.41 at the B1

level. At the A2 level we also find a considerable age difference, as the 11-year-olds use the progressive 54.91 times per 1000 words and the 15-year-olds "only" 40.51. This difference seems greater than the previously observed 4.9 percentage points that separate these two groups when measured per total number of finite verbs. Again, this is possibly an effect of the more complex language that comes with age. The results are also difficult to interpret due to the great and unsystematic gender differences at the two lowest levels.

It is interesting to note that the two individuals that have attained the highest proficiency level in their respective age groups use the progressive with a frequency that is well within the range of native-speaker written production. It is, however, not possible to generalize from just two cases, and certainly not without looking at individual use in the other groups as well.

Table 5.2.3: Distribution of grammatical aspect and ING per 1000 words: proficiency groups.

Group	PROG/1000 words	ING/1000 words	Words total
A1	**51.97**	**0**	**2059**
11	**55.98**	**0**	**1822**
Boys	27.43	0	401
Girls	64.04	0	1421
15*	**21.10**	**0**	**237**
Boys	21.10	0	237
A2	**48.92**	**3.00**	**12346**
11	**54.91**	**1.39**	**7212**
Boys	64.11	1.94	3603
Girls	45.72	0.83	3609
15	**40.51**	**5.26**	**5134**
Boys	29.60	5.09	2162
Girls	48.45	5.38	2972
B1	**15.41**	**15.15**	**11198**
11*	**2.40**	**7.21**	**416**
Girls	2.40	7.21	416
15	**15.90**	**15.45**	**10782**
Boys	14.47	17.95	5044
Girls	17.25	13.07	5738
B2*	**3.54**	**17.7**	**565**

As for ING, we clearly see the effect of both age and proficiency level in that not a single token is produced by any of the learners at the A1 level. Only at the A2 level do they start to use this variable, though sparingly. With 1.39 occurrences per 1000 words at age 11 and 5.26 at age 15, we also see a possible age effect within the A2 level. At the B1 level, on the other hand, the frequency has increased to what, judging by the present dataset, seems to be an appropriate native-speaker level, at 15.15; tying in with their use of the progressive at 15.41. This is also in line with the development seen in Berman and Slobin (1994: 138), where slightly

more than half of the *-ing* forms produced by adult native speakers were found in non-finite contexts.

In sum, the initial analysis seems to support several of the hypotheses in this thesis: In line with H1, Norwegian learners use the progressive much more than comparable native speakers. However, as a group the native speakers in the present study also overuse this construction, compared to written, adult native-speaker corpora. Thus, there seems to be some development in the use of this form in first language users as well (barring the potential effect of genre differences). The predicted decline in overuse with age as well as increased proficiency, expressed in H2 and H4 respectively, is also found, but so far proficiency level seems to be a greater predictor. H3, on the other hand, predicted no gender differences, but this first analysis has shown otherwise; the pattern is unclear at best, but with a slight tendency towards more use in boys than girls when all groups, both L1 and L2, are considered. Finally, the overall numbers support H7; initially learners mainly use ING in the progressive and only later expand it to non-finite contexts. Which of these contexts the learners prefer will be explored in some detail in section 5.8.3.

5.3 Individual differences

Group scores give a good idea of average differences between learner groups, but do not take into consideration any possible *within-group* variation. As this is not a study of the use of the progressive in general, but rather an investigation of *learner usage* and *development*, an outline of such individual differences is important in order to understand the relative impact of the independent variables. This section therefore outlines the results for each of the linguistic variables on the text level, where descriptive statistics are given based on percentage scores for each relevant variant, in each learner text. In addition, two other features are looked at: number of finite contexts and frequency of verbal coding. These two features are not used as independent variables, but give additional information about the nature of the texts; finite contexts because it is a measure of the amount of data produced, and verbal coding because it shows the informants' grasp of verb inflection in general. This is further explained below. For each of the variables, the results are given first as a comparison between Norwegian and American groups, subdivided by age and gender, and second as a comparison between proficiency levels in the Norwegian groups. In the latter case, the groups are too small to be subdivided by gender.

In their study of functor acquisition order, Dulay and Burt (1974a: 49) find that group scores and group means hardly differ, but they present neither the median, the range or the

standard deviation, all of which give information about variation within the groups. This type of data allows us to partially assess the likelihood of L1 influence, to the extent that there is evidence of *intragroup homogeneity* and/or *intergroup heterogeneity*, two of Jarvis' (2000, Jarvis and Pavlenko 2008) three criteria (cf. section 2.2.6); H10 uses the null hypothesis for the former criterion and predicts no intragroup homogeneity, but since H1 predicts differences between the L1 and L2, H10 must by consequence predict some degree of intergroup heterogeneity. The information in this section is mostly presented both in tabular form and in boxplots. This way the reader has full access to all the data from the descriptive statistics, as well as visual representations that allow one to take in a quick impression of the variation in the dataset.

5.3.1 The progressive

Table 5.3.1 below shows the variation in the use of PROG in all the groups, with the same information rendered more visually accessible in the box plots in Figure 5.3.1.

Table 5.3.1: Distribution of grammatical aspect: all groups.

	Norwegian 11 (N=45)			**USA 11 (N=38)**		
	% progressive			% progressive		
	All	Girls	Boys	All	Girls	Boys
Mean	41.01	39.68	42.68	16.43	13.47	19.73
Median	45.20	45.20	47.50	10.50	9.60	10.90
Std. d.	27.90	27.89	28.53	15.90	9.40	20.72
Minimum	.00	.00	.00	.00	4.30	.00
Maximum	88.90	88.90	83.30	66.70	37.70	66.70
Range	88.90	88.90	83.30	66.70	33.40	66.70
N texts with 0%	2	1	1	2	0	2

	Norwegian 15 (N=44)			**USA 15 (N=38)**		
	% progressive			% progressive		
	All	Girls	Boys	All	Girls	Boys
Mean	21.76	25.64	17.50	14.88	12.63	16.91
Median	14.40	16.10	10.30	10.70	10.70	10.55
Std. d.	20.60	22.37	18.04	17.05	11.87	20.77
Minimum	1.80	2.30	1.80	.00	.00	.00
Maximum	79.40	79.40	63.20	87.50	52.80	87.50
Range	77.60	77.10	61.40	87.50	52.80	87.50
N texts with 0%	0	0	0	2	1	1

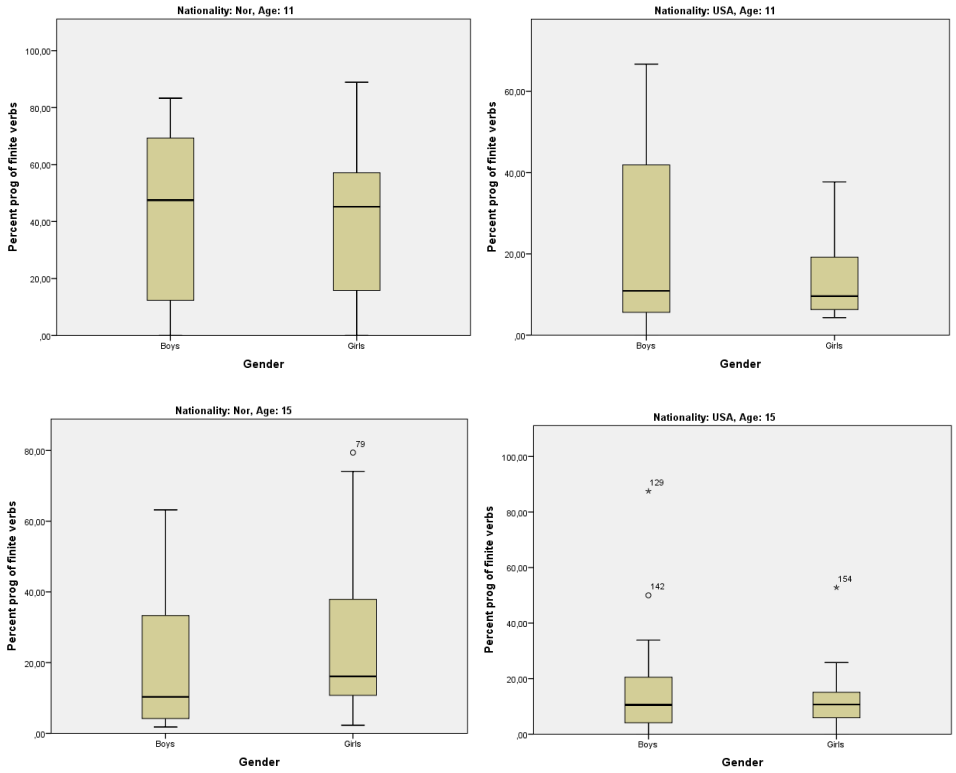

Figure 5.3.1: Distribution of grammatical aspect: all groups.

The most striking thing is how much the use varies in all of the groups, with figures ranging from no occurrences to 88.90% of all finite verb contexts, as defined in section 4.8.2.2. This range is, not surprisingly, found in Norwegian 11-year-olds, but a score of 87.50% is produced by an American 15-year-old boy as well, revealing that overuse is not necessarily predictable by either L1 or age. The spread, however, is greater in the Norwegian groups than in the American ones.

These results reveal a number of things that were obscured by the group results. First, we find that the group means correspond well with the group scores in the native-speaker groups, with differences only around 1%. The L2 learners, on the other hand, mostly have group means higher than the group scores, which most likely means that some of the learners with lower scores contribute more (i.e. more finite contexts) to the pooled group results. The highest discrepancy between group scores and group means is in Girls N11, whose mean is 4.68 percentage points higher than the group score, at 39.68 and 35.0 respectively. Meanwhile, Boys

N11 have approximately the same score with the two types of measurement; 42.68 vs. 42.50. The group means thus indicate less gender difference than the group score in the N11 group.

Second, we see that the mean is higher than the median in all groups except N11, often much higher. This means that in these groups there is more variation in the 50% who use PROG the most than in the other half who use it the least. This is especially the case in the N15, Boys A11, and Boys A15 groups, who all have a relatively low median, despite the great range. A very high use of PROG may therefore not represent the most typical learners in these group, although more moderate overuse seems to be characteristic of the group behaviour in N15 and Boys A11. In N11, by contrast, there is slightly more variation in the half that uses PROG between 0% and 45.20% than in the one that uses it between 45.20% and 88.90% of the time. In other words a very even spread. Most of the groups also have quite a discrepancy between the mean and the median; a difference of anywhere from two (Girls A15) to nine (Girls N15 and Boys A11) percentage points.

The next observation is that most of the groups have a high standard deviation. This means that the variation is so great that no one individual can be said to be representative for the group as a whole. This is evidence of very low intragroup homogeneity and is the first indication that Norwegian learners' use of PROG is not likely to be influenced by their first language. However, this lack of homogeneity is also found in the Boys A11 group, whose results are very similar to Boys N11. The N15 group is also somewhat more homogeneous than the N11 one, a result that attests to a certain development in the common understanding of this L2 construction. Jarvis' (2000, Jarvis and Pavlenko 2008) second criterion is intergroup heterogeneity[95]; a condition that seems to be met in that the results for the L1 and L2 groups differ considerably in both age groups. On the other hand, the fact that all groups display much individual variation can be seen as evidence that, as groups, they show a similar type of variation; that variable frequencies of PROG is in fact to be expected in any group and therefore not a sign of differences between L1 and L2 speakers. The two criteria are open to some amount of subjective interpretation and must be weighed against each other in order to draw any conclusions, as Jarvis (2000) discusses at length. All in all, an evaluation of the variation in this dataset does not lead me to suspect any L1 influence as far as the frequency of PROG is concerned.

[95] Though a comparison between L2 learners with two different L1s would be preferable, Jarvis and Pavlenko note that intergroup heterogeneity between L1 and L2 speakers of the same language may also be a way of detecting L1 influence (2008: 44); in either case, the other two criteria must also be met.

The next point to address is the previously observed gender differences. As already mentioned, the noticeable gender differences in the group scores are much less obvious in the N11 group when group means are considered, and the group medians similarly show little effect of gender. The same cannot be said for the N15 group; here both the mean and the median show much higher use in the female learners, in addition to greater range. By contrast, we find both lower and more homogeneous use in the American female groups, at age 11 as well as 15. The median is approximately the same in all of these groups, at around 10% (incidentally the same as Boys N11), but the boys have both higher means and a greater range. Girls A15, in particular, have a very homogeneous use of this construction, with values between the 25th and 75th percentiles ranging from around 5-15%. Boys A15 are quite homogeneous, too, which indicates that these groups have settled on a common understanding of the appropriate frequency of the progressive in narratives. Boys A11 seem more undecided as a group and have a markedly greater spread than same-age girls.

Finally, it should be mentioned that there are very few outliers in this dataset. Only Girls N15 and both A15 groups have one or two members whose usage differs markedly from their peers. The rest of the informants are all situated on a continuum in their respective groups. This continuum is very long in the L2 groups (and, curiously, Boys A11) and we may so far conclude that Norwegian learner use of the progressive is primarily characterized by great variation.

The analysis continues with the Norwegian groups divided into four groups, based on age and general level of proficiency. Further subdivision by gender was not done here as this would yield groups with too few informants in each group. Age, on the other hand, is kept as a variable as this distinction may give information about the relative impact of age (or years of instruction) and attained proficiency.

Table 5.3.2: Distribution of grammatical aspect: proficiency levels.

	Norwegian 11 (N=44)		**Norwegian 15 (N=43)**	
	% progressive		% progressive	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	43.56	41.35	34.20	13.06
Median	48.30	45.20	34.30	10.60
Std. d.	34.15	25.60	24.29	12.07
Minimum	2.70	0.00	3.20	1.80
Maximum	88.90	83.30	79.40	41.90
Range	86.20	83.30	76.20	40.10
N texts with 0%	0	2	0	0

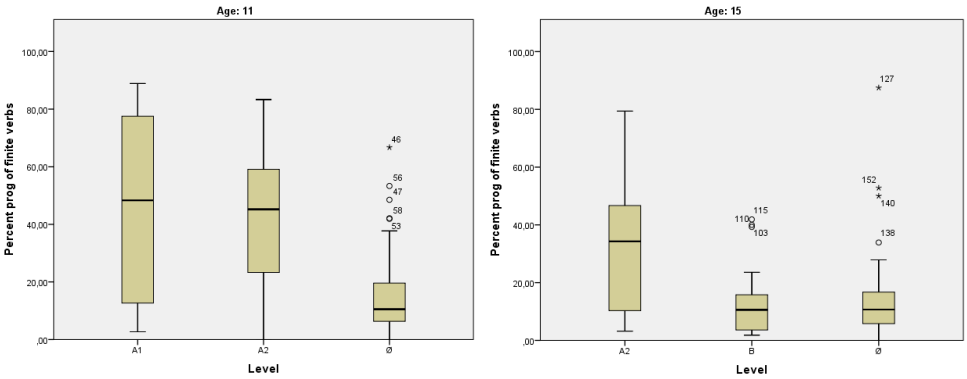

Figure 5.3.2: Distribution of grammatical aspect: all proficiency levels.

Table 5.3.2 above does bear witness of differences related to age as well as proficiency level, in line with H3 and H4. The difference between the A1 and A2 11 groups is marginal as far as both the mean and the median are concerned. However, the standard deviation is greater in the A1 group, indicating a greater spread in this group. At 43.56% and 41.35% respectively, the mean is also noticeably higher than the 37.8% noted for both of these groups in the group scores, and the medians are about four percentage points higher than the means. In comparison, the group scores and group means for the A2 15 and B groups are almost identical. Thus the group means bring out an age difference on the A2 level that was not quite as apparent from the group scores. The standard deviation is the same in both age groups on this level, however, which indicates a greater lack of homogeneity than in the B group, where the standard deviation is as low as in the American female groups. A continuously lower standard deviation across proficiency levels may be interpreted as steps toward a common understanding of the use of the progressive, at least as long as other factors are not yet considered.

From Figure 5.3.2 above, we get a graphic representation of the numbers presented in Table 5.3.2. Here the native speaker groups are included for comparison. The most striking observation is that the B group has a median value that is the same as both of the native-speaker groups. In addition, the T-bars cover a narrower range than for the latter groups and the distribution is skewed towards the lower end of the spectrum. What this figure shows us is that, as far as the frequency of PROG is concerned, these Norwegian learners at the B level group with native-speakers rather than with L2 learners at lower levels of proficiency. There are some outliers in this group, whose usage differs noticeably from the rest of the group, but this is also

the case in the native-speaker groups, which include 12 outliers in the two age groups combined, four of which are extreme outliers[96].

5.3.2 Number of finite contexts

Although the number of finite contexts is not used as an independent variable, it is useful to have an overview of the variation as regards this feature as well; it gives a further impression of how much the informants in this dataset differ, despite the measures taken to ensure that each group consists of learners with similar backgrounds.

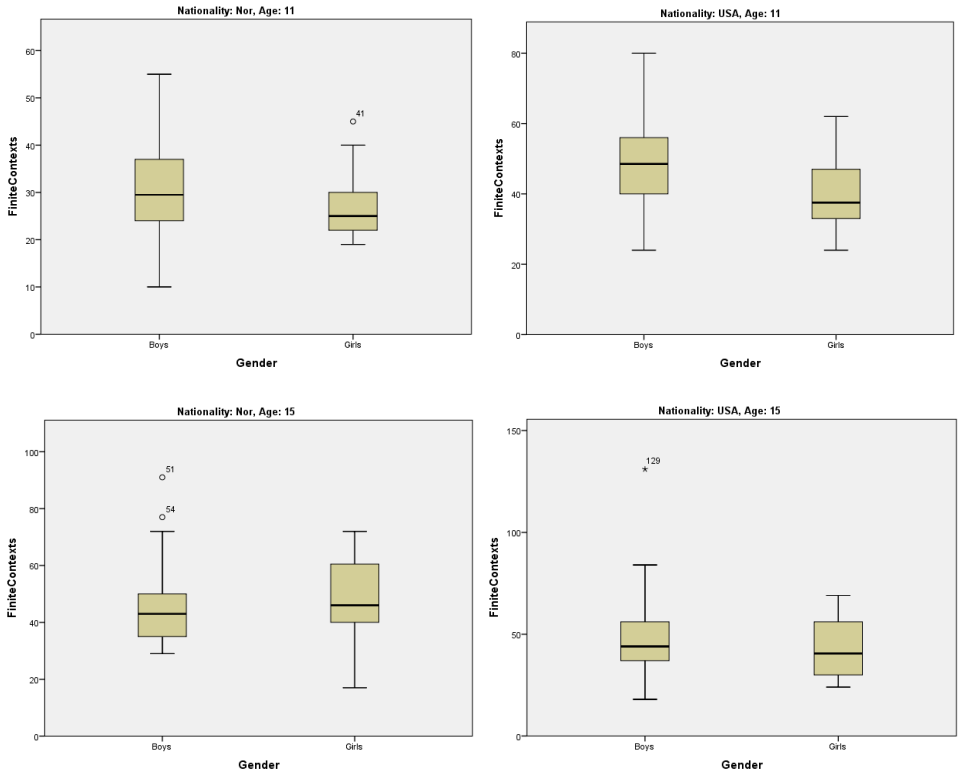

Figure 5.3.3: Number of finite contexts: all groups.

As Figure 5.3.3 shows, the texts do not only vary in their total number of words, but also in how many finite contexts are included. In this way differences that may be due to use of

[96] There are more outliers in this figure than in figure 6.3.1 since the groups are not divided by gender; when a group with less spread is pooled with a group with greater spread, the larger concentration around the median leads more of the higher values to be judged as non-representative.

elaborations in the form of adjectives, adverbials, prepositional phrases, etc. are eliminated. We are then left with the actual number of contexts for potential use of the progressive. The rather unexpected observation that can be seen from Figure 5.3.3 is that boys on average have more finite contexts than girls in three of the groups, although girls have written more words total. This goes some way towards explaining why boys use more progressives per 1000 words, and may serve as further argument against using this measure. Girls N11 have a mean of 26.88 contexts per texts, in contrast to Boys N11 at 31.55; both groups have a median that is only slightly lower than the mean. The spread is less for the girls, however; we see that boys have written the texts with the smallest as well as the largest number of finite contexts, which is reflected in an 11.00 standard deviation, compared to 6.57 in the female group.

Table 5.3.3: Number of finite contexts: all groups.

	Norwegian 11 (N=45)			**USA 11 (N=38)**		
	Finite contexts			Finite contexts		
	All	Girls	Boys	All	Girls	Boys
Mean	28.96	26.88	31.55	44.34	40.40	48.72
Median	28.00	25.00	29.50	44.00	37.50	48.50
Std. d.	9.02	6.57	11.00	13.78	11.70	14.89
Minimum	10	19	10	24	24	24
Maximum	55	45	55	80	62	80
Range	45	26	45	56	38	56

	Norwegian 15 (N=44)			**USA 15 (N=38)**		
	Finite contexts			Finite contexts		
	All	Girls	Boys	All	Girls	Boys
Mean	47.14	47.83	46.38	48.13	44.00	51.85
Median	44.00	46.00	43.00	43.00	40.50	44.00
Std. d.	14.83	12.96	16.94	21.89	15.61	26.16
Minimum	17	17	29	18	24	18
Maximum	91	72	91	131	69	131
Range	74	55	62	113	45	113

The difference between boys and girls is even greater in group A11, as seen in Table 5.3.3, with means of 48.72 and 40.40 contexts respectively. In addition, the girls have a lower median, at 37.50, whereas the boys' is roughly the same as the mean. Not surprisingly, group N11 produce much fewer contexts (minimum 10, maximum 55) than the native speakers (minimum 24, maximum 80).

In the older groups, we find the same tendency in the native-speaker groups; on average, boys have more finite contexts (51.85 versus 44.00) and the spread is greater. N15, on the other hand, does not display the same pattern. Here the girls produce slightly more finite contexts than boys, with means of 47.83 and 46.38 respectively. Both numbers are also higher than Girls A15. These gender differences, and the fact that they show the opposite pattern as that of a general word count, indicates that boys may have "verbier" writing styles than girls; a finding that would be worth exploring further in a different study.

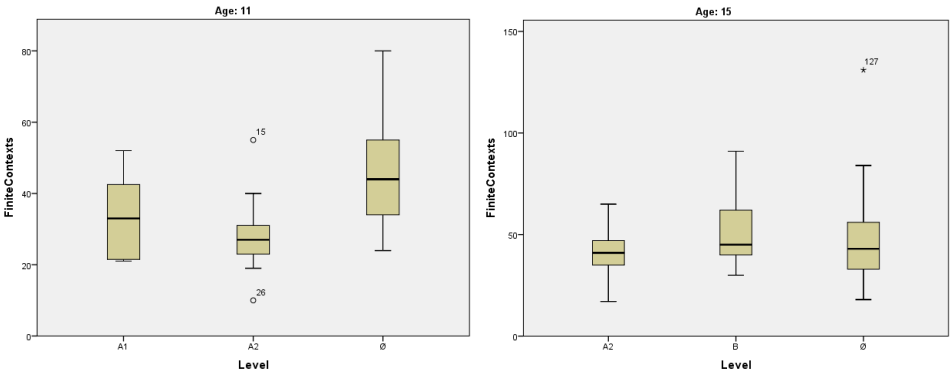

Figure 5.3.4: Number of finite contexts: proficiency levels.

Table 5.3.4: Number of finite contexts: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	Finite contexts		Finite contexts	
	A1 (N=11)	A2 (N=33)	A2 (N=18)	B (N=25)
Mean	32.73	27.67	41.89	50.44
Median	33.00	27.00	41.00	45.00
Std. d.	11.77	7.87	12.24	15.82
Minimum	21	10	17	30
Maximum	52	45	65	91
Range	31	35	48	61

Figure 5.3.4 and Table 5.3.4 present the differences across proficiency levels. As can be expected, the more proficient learners produce more finite contexts, although the A1 level actually has a higher mean (32.73) than A2 11 (27.67). The median is about the same as the mean in these groups. Amount of text produced seems related to both age and proficiency level, as the mean goes up to 41.89 in group A2 15 and then further up to 50.44 in group B. The latter

group has a lower median, however, at 45.00, and also a greater spread (std. d. 15.82). Again we see that the B level groups with native-speakers rather than learners at lower proficiency levels.

5.3.3 Frequency of verbal coding

Table 5.3.5 and Figure 5.3.5 below show how many verb phrases in finite contexts are given any kind of verbal coding[97], whether morphological or periphrastic. This overview is presented in order to show the extent to which learners are able to use other verb forms than the base form in general. Their general capacity to code verbs in terms of tense, aspect and/or modality can then be compared to their use of PROG. Unlike the assessment of present tense inflection, where base forms were seen as present tense in cases of correct subject-verb agreement (cf. section 4.8.2.2), this is a purely formal analysis. In other words, any attempt at expanding the verb beyond the base form is seen as an example of verbal coding, whether the use is appropriate or not. Similarly, base forms are not seen as coded, even when they are used correctly in the present tense.

The frequency of verbal coding is included in the present chapter to show that the groups vary in their use of *any* verbal coding, not just the progressive. However, this factor cannot be used as an independent variable subject to statistical testing, as the dependent variable – PROGRESSIVE – is itself a form of verbal coding and thus part of the category; a high frequency of PROG would yield a high frequency of verbal coding, regardless of how often other types of coding are used. In such cases it would not be possible to claim this as a correlation.

Figure 5.3.5 below informs us that all groups use verbal coding extensively. This is in contrast to PROG, which is used much more in some groups than in others. In the oldest groups, we see that both N15 and A15 on average produce verbal coding in well over 80% of all possible contexts, i.e. the verb slot in finite clauses. We also see that no text is below 45% in group N15 or 63% in A15. These numbers allow for the variation that comes with the use of the present tense other than in the third person singular. There are no notable gender difference in these groups, other than a greater spread in the males than the females.

[97] The term *inflection* cannot be used here, as – strictly speaking – this only refers to morphological coding.

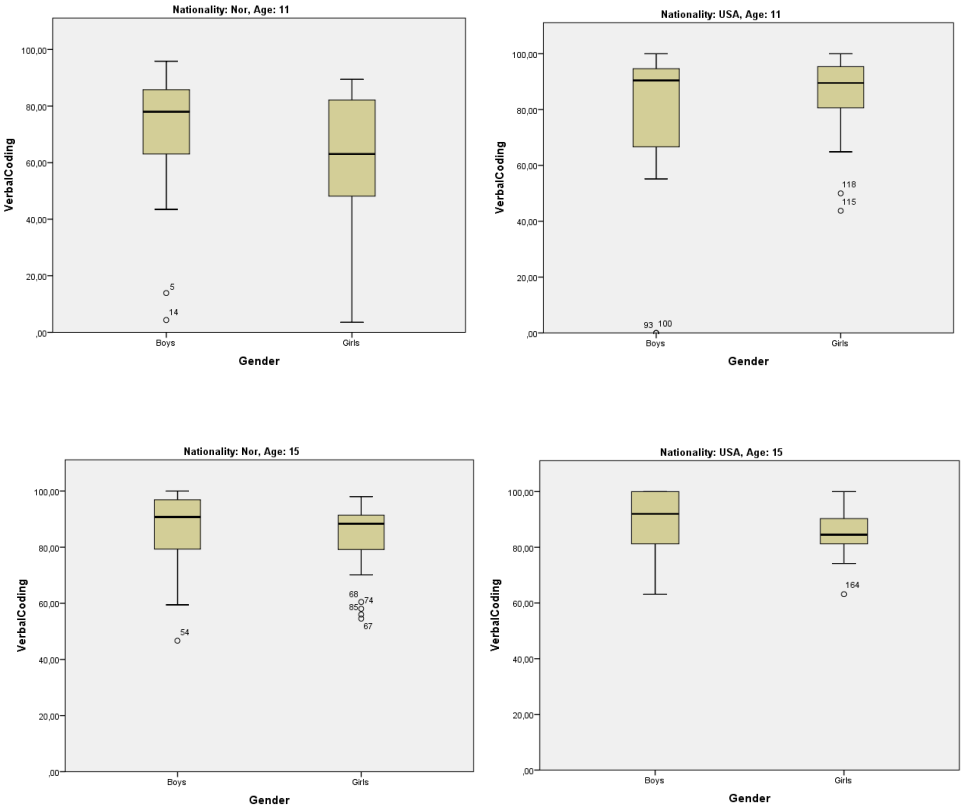

Figure 5.3.5: Distribution of verbal coding in finite contexts: all groups.

In the younger learners, as Table 5.3.5 shows, there is a greater difference between the L1 and L2 groups, with a difference in means of 15 percentage points; 80.37 and 65.12 respectively. It should be remembered that on average, 41% of verbal coding is PROG aspect in group N11; this is almost 2/3 of the total. By contrast, A11's mean frequency of PROG is 16.43, which is only about 1/5 of the total verbal coding. Group A11 also has a much higher median – 90.5% – as there are some outliers who perform well below average. In particular, this group includes two boys who do not produce any finite verbal coding; these are the only ones in the whole dataset. In these groups there are also noticeable gender differences: Boys N11 have a higher mean (69.91 vs. 61.29) and median (77.98 vs. 63.04) than the girls, and we see much greater variation in the female group, with the bottom whisker going as low as 3.57%. The two boys with really low frequencies are outliers and therefore not representative. Group A11 displays the opposite pattern; the girls' frequency of verbal coding is more homogeneous than in the male group.

Table 5.3.5: Frequency of verbal coding in finite contexts: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Any verbal coding: % of all verb forms			Any verbal coding: % of all verb forms		
	All	Girls	Boys	All	Girls	Boys
Mean	65.12	61.29	69.91	80.37	84.69	75.57
Median	73.53	63.04	77.98	90.05	89.55	90.45
Std. d.	24.93	24.56	25.19	24.07	16.02	30.47
Minimum	3.57	3.57	4.35	0.00	43.75	0.00
Maximum	95.83	89.47	95.83	100.00	100.00	100.00
Range	92.26	85.90	91.48	100.00	56.25	100.00
N texts with 0%	0	0	0	2	0	2

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Any verbal coding: % of all verb forms			Any verbal coding: % of all verb forms		
	All	Girls	Boys	All	Girls	Boys
Mean	83.68	82.76	84.68	87.53	85.56	89.31
Median	88.45	88.33	90.74	87.97	84.52	92.02
Std. d.	14.11	13.57	14.95	10.28	9.61	10.66
Minimum	46.67	54.55	46.67	63.16	63.16	63.16
Maximum	100.00	98.00	100.00	100.00	100.00	100.00
Range	53.33	43.45	53.33	36.84	36.84	36.84
N texts with 0%	0	0	0	0	0	0

What such an overview of general coding frequency tells us is that although young Norwegian learners use PROG excessively, they do not master overall verbal coding to the same degree as older learners or native speakers. This is an indication that the progressive is learned before other types of verbal coding, a finding that lines up well with e.g. Dulay and Burt's (1974a) functor studies (cf. section 3.4). These results also give an indication that girls may rely on verbal coding – including the progressive – less than boys, in the early stages of L2 learning; along with the results for finite contexts in section 5.3.2 above, this finding corroborates the impression that the boys in this dataset have an overall stronger focus on verbs than the girls.

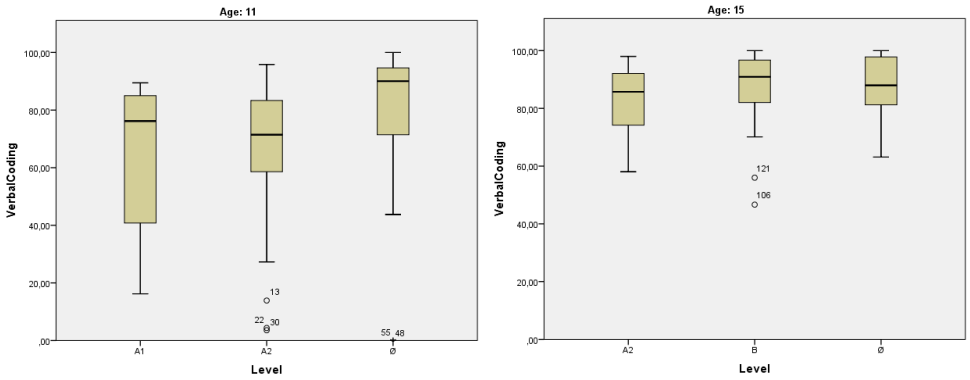

Figure 5.3.6: Distribution of verbal coding in finite contexts: proficiency levels.

Figure 5.3.6 above breaks these frequencies down according to proficiency level. It seems that proficiency level does not really correlate with frequency of verbal coding; level A1has a higher mean and median and we find the poorest performances in A2 11. Both of these groups have lower frequencies than A2 15 and B, and of these two, group B only has a slightly higher mean (83.36 vs. 81.57). On the other hand, group B has a greater spread than A2 15, with two outliers at the lower end of the scale. It seems, then, that proficiency level has a greater effect on the production of PROG than on the overall use of verbal coding. This may be taken as an indication that PROG is easier to learn formally than other verb forms, but more difficult to learn to use correctly.

5.3.4 Frequency of tense forms

Tense is not a dichotomous variable in the present study: In addition to the two English tense forms, past and present, the variant *base* is included (cf. section 4.8.2). This is because learners often fail to mark verb phrases for tense, particularly at low levels of proficiency, and the learners in the present study are no exception. With dichotomous variables such as PROGRESSIVE, where the two variants are presence and absence of the feature, any result given in percentages for one variant implies that that result and the percentage for the other variant add up to 100%. Therefore, there is no need to present the numbers for more than one of the variants. This is not the case when there are more than two variants, and for this reason the results for the variable *tense* are given for each of the variants.

Base forms

In section 4.8.2, the variant *base* was defined as no tense marking in contexts where such marking is obligatory; base forms used with subjects other than the third person singular are counted as present tense forms, as these contexts do not require any inflectional tense marking. Progressives used without auxiliary BE, thus not marked for tense, are also counted as base forms.

Table 5.3.6: Distribution of base forms: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Tense: % Base			Tense: % Base		
	All	Girls	Boys	All	Girls	Boys
Mean	41.68	48.45	33.22	3.60	1.64	5.77
Median	36.00	53.57	29.67	.00	.00	.00
Std. d.	25.54	26.15	22.62	10.24	2.76	14.50
Minimum	.00	.32	.00	.00	.00	.00
Maximum	100.00	100.00	73.91	54.17	9.38	54.17
Range	100.00	99.68	73.91	54.17	9.38	54.17
N texts with 0%	1	0	1	23	12	11

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Tense: % Base			Tense: % Base		
	All	Girls	Boys	All	Girls	Boys
Mean	9.41	7.80	11.17	.94	.59	1.25
Median	3.45	3.33	3.7	.00	.00	.00
Std. d.	11.68	9.49	13.72	2.09	1.10	2.69
Minimum	.00	.00	.00	.00	.00	.00
Maximum	47.62	33.33	47.62	10.53	3.77	10.53
Range	47.62	33.33	47.62	10.53	3.77	10.53
N texts with 0%	9	4	5	26	12	14

Table 5.3.6 above shows how frequently base forms are used in each of the basic groups. This is a variant where we see enormous differences between L2 learners and native speakers, as well as between younger and older L2 learners. N11 has a frequency of base forms that ranges from 0 to 100%, with a mean of 41.68%. The median is considerably lower, at 36%; this means that the texts with a high proportion of base forms contribute greatly to the average. The standard deviation is also high, at 25.54, which indicates great variation; this is visually represented in the boxplots in Figure 5.3.7 below, where gender differences in this group are also very noticeable. Boys N11 use the base tense considerably less than the girls do, and none

of them uses only base forms (maximum 73.91%), as some of the girls do. The girls have a mean that is 15 percentage points higher than the boys', and a 20-point higher median.

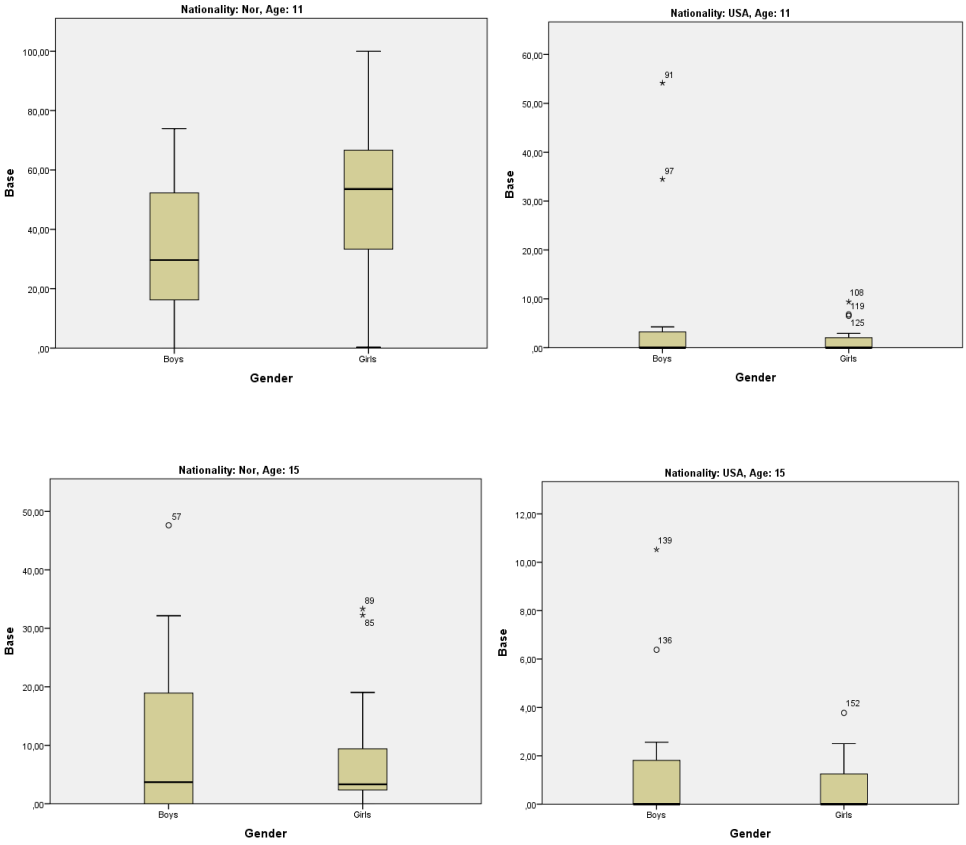

Figure 5.3.7: Distribution of base forms: all groups.

We have already seen that Boys N11 use both PROG and general verbal coding more than Girls N11, so a pattern now emerges; young, male L2 learners of English seem to be a few steps ahead of their female peers when it comes to producing a variety of English verb forms. This is not to say that their usage is more "correct" or "native-like" – such an evaluation is beyond the scope of this study, nor is it supported by the fact that these boys clearly overuse PROG – only that they seem bolder in their attempts at exploring the English verbal system.

N15 also produce quite a few base forms in their texts, but the development across age groups is positive. The mean is 9.41% and the median only 3.45%; this means that half the texts use tense inflection in more than 96% of the obligatory contexts (i.e. excluding base forms

correctly used as present tense). In these texts, it is likely that the use of base forms is due to performance mistakes rather than lack of sufficient knowledge of the English tense system. Even when outliers are included, each of these texts has tense inflections in at least half of the obligatory contexts, and nine texts out of 45 do not have any unjustified base forms at all. In the N11 group, by contrast, only one text avoids base forms entirely (not the B1 text, as one might perhaps have guessed). Gender differences are not as great in N15 as in N11, but it is interesting to note that although the median is approximately the same, the spread is greater in the male group and it thus seems that more boys than girls have problems with tense inflection in this group.

In the native-speaker groups, one would expect a perfect command of tense forms, and the median is indeed 0% in both age groups. However, even some of the native speakers struggle with this feature, particularly in the youngest group, where some extreme outliers use base forms up to 54% of the time. In A15, on the other hand, the maximum use of base forms is 10.53% and the mean is less than 1%. Use of base forms cannot be said to be representative of native speakers at all, as well over half of these texts have 0% tokens. There is a slight tendency for boys to perform more poorly than girls, but with such small numbers, the difference is negligible.

Table 5.3.7: Frequency of base forms: proficiency levels.

	Norwegian 11 (N=44)		**Norwegian 15 (N=43)**	
	% base forms		% base forms	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	58.22	37.08	14.67	4.67
Median	61.90	33.33	13.25	2.38
Std. d.	28.78	22.23	12.25	8.38
Minimum	17.24	0.00	0.00	0.00
Maximum	100.00	73.91	47.62	32.14
Range	82.76	73.91	47.62	32.14
N texts with 0%	0	1	1	9

Table 5.3.7 above shows differences across proficiency levels and makes it clear that this is a feature that follows a linear development. In the A1 group, the minimum percentage of base forms is 17.24, with a mean of 58.22, whereas the mean goes down to 37% in group A2 11. Both of these groups have a great spread, but there is a clear trend toward more tense inflection with higher proficiency. On the other hand, there seems to be an age effect that is independent of overall proficiency level, as the use of base forms also drops considerably from

A2 11 to A2 15, with a 14.67% mean in the latter group. In the B group, nine out of 25 texts do not include any unwarranted base forms and the mean is as low as 4.67%.

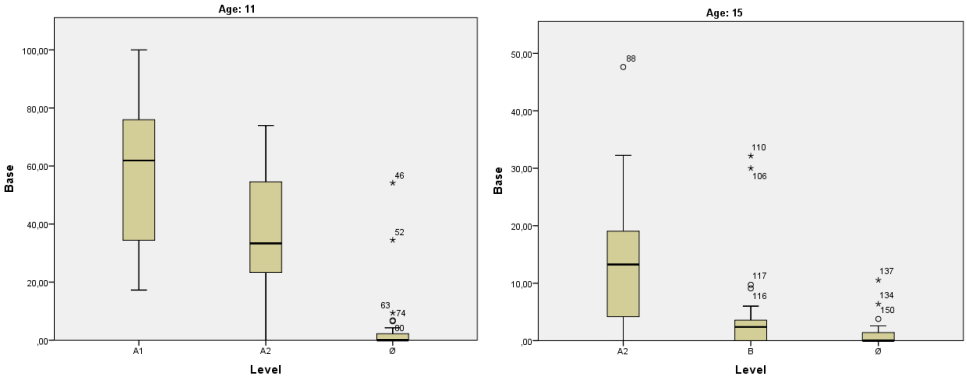

Figure 5.3.8: Distribution of base forms: proficiency levels.

As can be seen from Figure 5.3.8, there are several outliers at the B level, and most of the texts are clustered around 3%. The percentage is still higher than for the native speakers, but these numbers suggest that tense inflection cannot be considered a problem for learners at this level, at least when it comes to applying some sort of inflection; an evaluation of correct past/present tense usage or subject-verb agreement is beyond the scope of this study.

H5.1 predicted a positive correlation between the frequency of the progressive and no overt tense marking. So far, these results support this part of the hypothesis to some extent, although the lack of tense marking shows a clearer development across age and frequency levels than the frequency of PROG. In addition, the results are inconclusive as far as the variable *gender* is concerned, since both Girls N11 and Girls N15 show a negative correlation between the two variables compared to same-age boys; on the other hand, both of these groups have high frequencies of base forms as well as PROG compared to the native speakers.

A final note should be made as regards the use of lexical BE, which is excluded from the present analysis for reasons discussed in section 4.8.2. This is the most frequently used verb in the dataset, with a total of 1156 tokens; only three of these occur in the base form (all in group N11). It is therefore safe to say that these learners are aware that English is a tensed language; the abundance of base forms is then likely due to a lack of mastery of the different inflectional forms, rather than lack of knowledge of English tense distinctions. This assumption is further corroborated by the fact that Norwegian is a tensed language, which means that there is a great potential for crosslinguistic identification.

Past tense

As the progressive is associated with the present tense, the prediction in H5.2 is that there will be a negative correlation between the frequency of the progressive and the frequency of past tense forms; the groups that use PROG a lot are therefore not expected to have many past tense tokens in their texts.

Table 5.3.8: Distribution of past tense forms: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Tense: % Past			Tense: % Past		
	All	Girls	Boys	All	Girls	Boys
Mean	11.97	8.11	16.80	41.39	49.38	32.50
Median	4.55	3.57	5.28	23.66	53.33	20.61
Std. d.	23.08	16.86	28.82	35.28	35.90	33.31
Minimum	.00	.00	.00	.00	5.41	.00
Maximum	100.00	82.76	100.00	98.73	98.73	92.86
Range	100.00	82.76	100.00	98.73	93.33	92.86
N texts with 0%	17	11	6	1	0	3

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Tense: % Past			Tense: % Past		
	All	Girls	Boys	All	Girls	Boys
Mean	23.30	9.22	38.73	33.36	33.81	32.96
Median	9.60	4.76	26.67	14.44	14.44	15.46
Std. d.	31.27	11.30	38.53	36.09	37.43	35.81
Minimum	.00	.00	.00	.00	3.13	.00
Maximum	100.00	41.18	100.00	100.00	100.00	100.00
Range	100.00	41.18	100.00	100.00	96.88	100.00
N texts with 0%	6	4	2	1	0	1

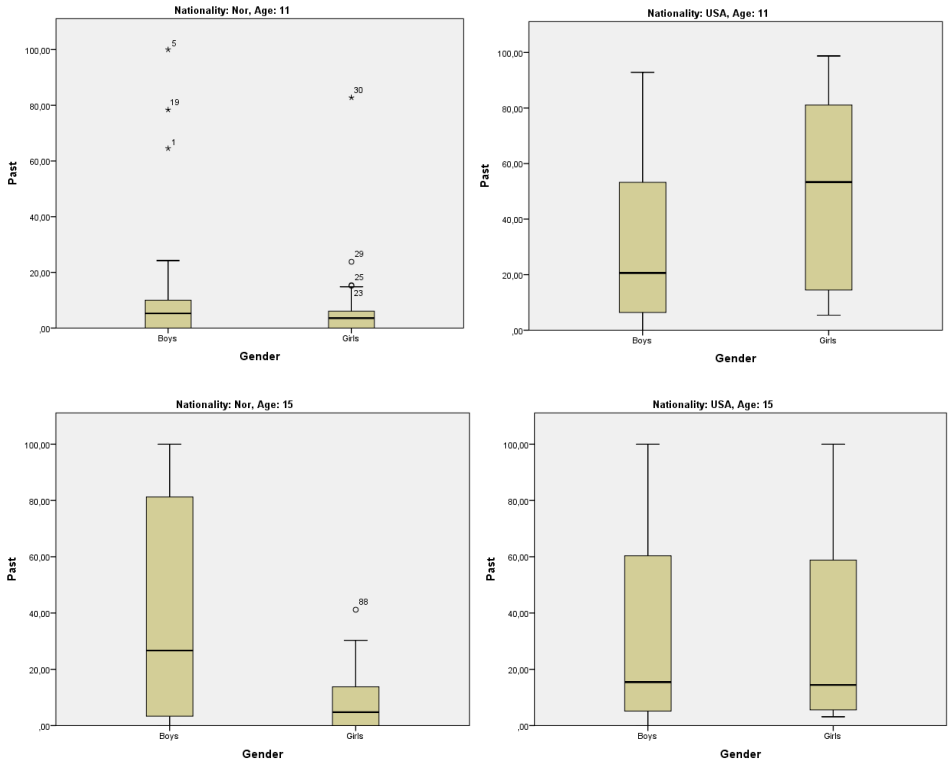

Figure 5.3.9: Distribution of past tense forms: all groups.

From Table 5.3.8 and Figure 5.3.9 above, it is evident that the learners in group N11 either do not master English past tense inflection or have chosen not to use it[98]. As many as 17 of the texts do not contain any past tense forms at all, but the remaining 28 make some attempts, at least. Only four outliers are consistently or predominantly in the past tense; the rest have a frequency of 25% or less and the mean is as low as 12%, with an even lower median, at 4.55%. Although both boys and girls use the past tense very little, Boys N11 seem to use it quite a bit more than the girls (16.80% and 8.11% means respectively), which is in line with the overall higher use of verbal coding that we have already seen in section 5.3.3 above.

Moving on to N15, we see both an increased use of past tense forms and great overall variation, as well as between genders. The group mean is 23.20%, almost a quarter of the total number of finite contexts, and only six texts do not have any past tense tokens. However, the mean for Girls N15 is only 9.22% (median as low as 4.76%), which is just slightly higher than

[98] Several of these learners informed me, after they had finished writing their texts, that they had written the story "as if it was happening now".

Girls N11. The boys, on the other hand, have a 38.73% mean (26.67% median). These results once again confirm the impression that Norwegian boys are taking the lead in developing an L2 English interlanguage verbal system. It should be noted, though, that the boys also perform much more heterogeneously, with scores that range from 0-100% and a very even spread (std. d. 38.53), as can be seen from figure 6.3.9 below.

Variation in the choice of tense forms is far from exclusive to L2 learners in this study; the native-speaker texts range from 0-100%, though there are some differences within the age and gender groups. First, Girls A11 seem to have a particular preference for the past tense (49.38% mean, 53.33% median), very much unlike their Norwegian peers. Boys A11 use this tense form considerably less (32.50% mean, 20.61% median); their results are more similar to those of A15 (33.36% mean, 14.44% median) – a group with hardly any gender differences in this respect.

Gender differences in the use of past tense forms are hard to explain in themselves, but given the negative association between the progressive and the past tense postulated in H5.2, they might offer an explanation for some of the observed gender differences in the use of PROG. However, the correlation is not at all consistent, as Boys N11 use both PROG and past tense forms more than the girls. In addition, Girls A15 have the lowest frequency of PROG, yet their use of past tense forms is lower than that of Girls A11 and about the same as Boys A15, who in turn use PROG more. The connection does hold for Girls A11, who have more past tense forms and fewer progressives, and for Girls N15, who have fewer past tense forms and more progressives. With such conflicting observations, however, a possible correlation can only be confirmed through statistical tests. Such tests are performed and outlined in section 5.4.

Table 5.3.9: Distribution of past tense forms: proficiency levels.

	Norwegian 11 (N=44)		**Norwegian 15 (N=43)**	
	% past tense forms		% past tense forms	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	13.09	11.50	17.83	26.96
Median	5.41	3.70	11.74	5.56
Std. d.	24.14	23.44	17.16	38.80
Minimum	0.00	0.00	0.00	0.00
Maximum	82.76	100.00	48.28	100.00
Range	82.76	100.00	48.28	100.00
N texts with 0%	4	13	3	6

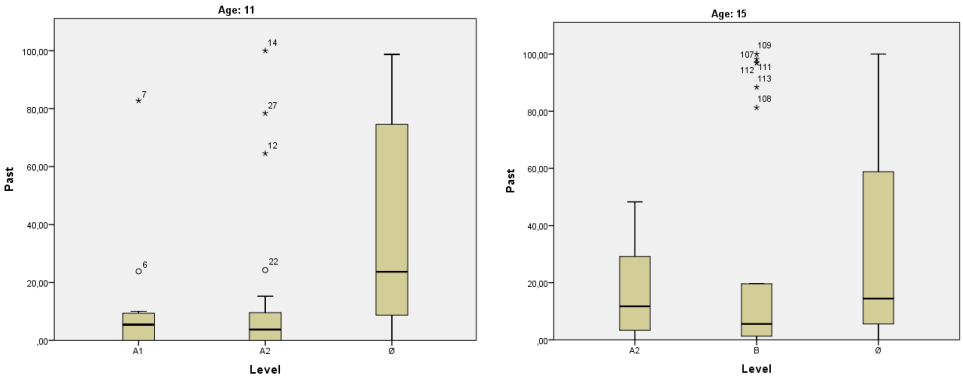

Figure 5.3.10: Distribution of past tense forms: proficiency levels.

Proficiency level does not seem to predict the use of past tense forms in this dataset, as can be seen from Table 5.3.9 and Figure 5.3.10 above. In fact, although the mean is considerably higher, levels A1 and B have approximately the same median, which means that half of the learners in these groups use past tense forms about 5.5% of the time or less. However, level B has a very high standard deviation (38.80), and thus a great spread. We see from Figure 5.3.10 that much of the variation at the B level is due to as many as six extreme outliers who predominantly use the past tense, in addition to six who do not use the past tense at all; the rest all stay within 20% use. This may be an indication that these learners have made a fairly consistent choice between past or present tense narratives. At the A2 level there is a clearer difference between the two age groups, with a higher mean as well as median in A2 15. The latter group also has the lowest range, with no texts with more than about 48% past tense tokens. These results are not consistent with H5.2, as the groups with few past tense forms in most of the texts have both high and low frequencies of PROG.

Present tense

An impression of the use of present tense forms can already be formed from the results presented above by way of deduction, but the numbers given in Table 5.3.10 below are nevertheless instructive. H5.3 predicted a positive correlation between the progressive and the present tense, which is not at all evident from the numbers in this table. In N11, where the frequency of PROG is highest, there is indeed very frequent use of present tense forms as well (48% mean, 46% median). However, the use of these forms is even higher in A11 (55% mean, 66% median) and we have seen that this group has a considerably lower use of PROG. Given the results for the progressive, the frequency of present tense forms would be expected to be

lower in the older groups of both nationalities, but in reality it is quite the contrary; these groups both have high frequencies, with similar means around 66% and even higher medians, at 82%.

Table 5.3.10: Distribution of present tense forms: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Tense: % Present			Tense: % Present		
	All	Girls	Boys	All	Girls	Boys
Mean	47.67	42.17	54.55	54.96	48.98	61.60
Median	46.42	39.39	61.03	65.62	45.67	71.49
Std. d.	26.70	25.51	27.19	32.24	35.46	32.52
Minimum	.00	.00	6.45	1.27	1.27	7.14
Maximum	93.33	87.50	93.33	100.00	94.59	100.00
Range	93.33	87.50	86.88	98.73	93.33	92.86
N texts with 0%	2	2	0	0	0	0

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Tense: % Present			Tense: % Present		
	All	Girls	Boys	All	Girls	Boys
Mean	67.29	82.98	50.10	65.66	65.52	67.79
Median	82.41	87.10	48.21	82.74	83.61	82.03
Std. d.	32.05	17.87	35.55	35.62	37.22	35.08
Minimum	.00	36.36	.00	.00	.00	.00
Maximum	100.00	100.00	100.00	100.00	96.88	100.00
Range	100.00	63.64	100.00	100.00	96.88	100.00
N texts with 0%	1	0	1	2	1	1

On the other hand, gender differences parallel the differences in the use of PROG in all groups but A15. Boys N11, who use PROG very frequently, use this construction as well as the present tense more than the girls, with a difference in means of 12 percentage points. A similar observation can be made in group A11, where the difference in medians is particularly great. Finally, Boys N15, with their low use of PROG, have a mean frequency of present tense forms which is 30 percentage points lower than the girls', and an even greater gap between the medians. The spread is great in all groups, oddly enough except in Girls N15, as can be seen from Figure 5.3.11 below; three outliers aside, this group consistently uses the present tense in more than 80% of the finite contexts. All the others range between less than 10% and more than 90%.

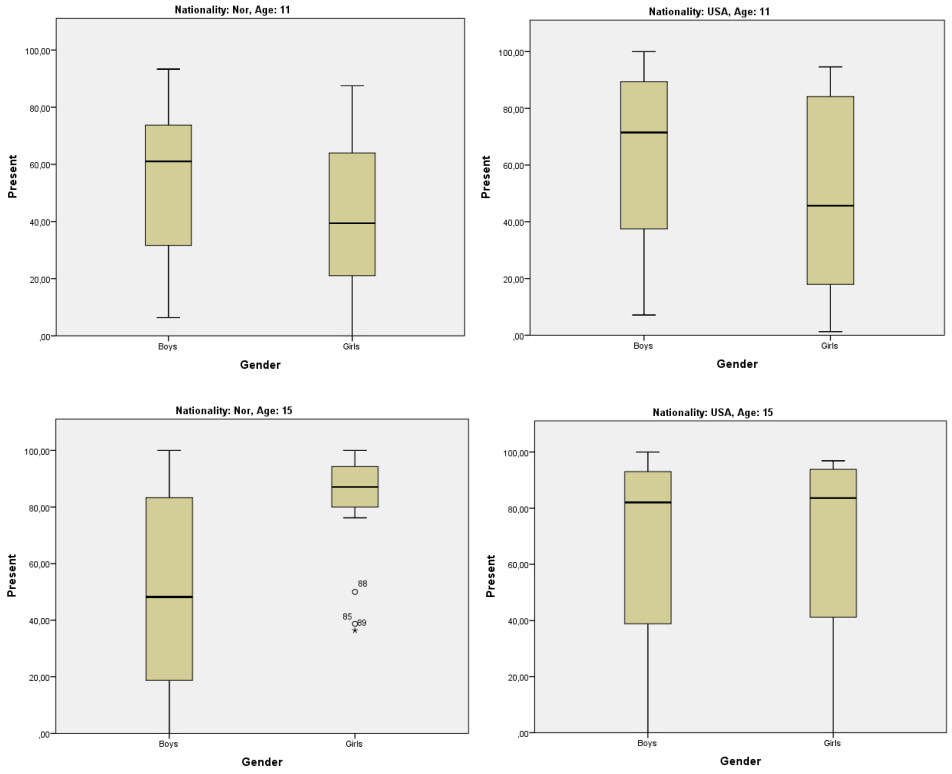

Figure 5.3.11: Distribution of present tense forms: all groups.

In the proficiency level groups, we see that the greatest difference is within the N11 group (Table 5.3.11), where A2 11 texts on average have present tense forms in 53% of the obligatory contexts; more than 20 percentage points higher than the A1 texts.

Table 5.3.11: Distribution of present tense forms: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	% present tense forms		% present tense forms	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	29.69	53.22	67.50	68.37
Median	21.05	59.09	71.43	87.10
Std. d.	25.62	24.48	22.84	37.81
Minimum	0.00	6.45	27.59	0.00
Maximum	70.00	93.33	98.00	100.00
Range	70.00	86.88	70.41	100.00
N texts with 0%	2	0	0	2

The difference in medians is even higher, with a gap of almost 40 percentage points. These two groups have almost identical frequencies of PROG, which means that use of the present tense in itself does not seem to have sufficient explanatory power in this age group.

The difference between age groups within the A2 level is not as great as between A1 and A2, but at 67.50%, the average use in A2 15 is still noticeably higher than in A2 11. Between A2 11 and B, on the other hand, there is hardly any difference in means, although the median is 16 percentage points higher at the B level. Again, these differences do not parallel the respective frequencies of progressive forms; the use of present tense forms goes up with proficiency, but the use of PROG goes down. One might easily speculate that these learners' base forms are "actually" attempts at the present tense, and if so, we would find support for H5.3, but since we do not have access to the learners' intentions or motivations, it is impossible to know which temporal concepts they were trying to express, if any. The actual forms they use must therefore be taken at face value.

Figure 5.3.12 below illustrates the variation within the proficiency level groups and we see that there is a great spread in all groups, but mostly skewed below the median; A1 is the only group that has a lower median than mean. The variation is in fact greatest at the B level, where the results are similar to those of same-age native speakers, as regards both averages and spread.

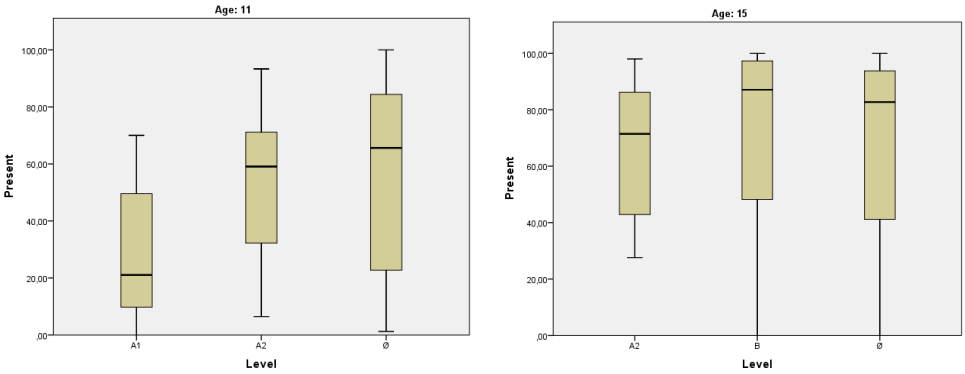

Figure 5.3.12: Distribution of present tense forms: proficiency levels.

To sum up, the results presented here indicate that tense is a variable that does not have as much impact on the use of the progressive as hypothesized, in these learner groups. The groups with the highest frequencies of PROG do use more base forms and fewer past tense

forms, but the differences between the various groups provide contradicting evidence, and a more comprehensive statistical analysis is required to make sense of this distribution.

5.3.5 Frequency of lexical aspect categories

Like tense, lexical aspect is a non-dichotomous variable, and results for all four variants are therefore presented in this section. It is essential to form an impression of how much the various learner groups use each of these variants, as they are said to be the strongest predictors of the use of the progressive, in English as well as other languages that have this aspect (cf. discussion on the Aspect Hypothesis in section 3.4.2). H6 predicts that 1) the relation is strongest between the progressive and activities, followed by accomplishments and then achievements, and 2) that the learners in this study do not use the progressive with states. The results presented here will indicate whether frequencies of each of these variants mirror frequencies of the progressive in accordance with the Aspect Hypothesis. They will not, however, give any information on how often each of the variants is used with the progressive *on the level of the verb phrase*, as this section only deals with how often each variant is used in each of the texts in general, irrespective of the verbal coding it occurs with. In theory, then, a text could have e.g. a high number of progressives, all used with achievements and accomplishments, and an even higher number of activities, all in the nonprogressive. Such a result would still show a strong correlation between the progressive and activities, by this analysis. Correlations on the *token level*, i.e. how often the progressive is used with each of the lexical aspect categories in the verb phrases, are given in section 5.6.

Activities

As Table 5.3.12 demonstrates, the group with the highest frequency of PROG, N11, is also the group with the highest frequency of activities. The mean and the median are both around the 30% mark and there are hardly any differences between the two genders. The standard deviation is not particularly high, compared to some of the other features we have looked at so far, which indicates an even spread. From Figure 5.3.13 below, we can see that the values between the 25th and 75th percentile are clustered around the 30% mark, while the rest are found within 10-50%; only a few outliers have higher or lower values. With such homogeneous results, the use of activities does not seem to be a factor that can explain the gender differences in this group in regard to the frequency of PROG.

Table 5.3.12: Frequency of activity verb phrases: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Lexical aspect: % activities			Lexical aspect: % activities		
	All	Girls	Boys	All	Girls	Boys
Mean	30.74	30.60	30.92	18.49	17.11	20.01
Median	30.00	29.63	30.21	19.30	17.64	20.64
Std. d.	10.63	12.06	8.83	7.92	5.52	9.89
Minimum	5.41	5.41	13.51	.00	4.35	.00
Maximum	62.96	62.96	50.00	36.84	26.23	36.84
Range	57.56	57.56	36.49	36.84	21.88	36.84
N texts with 0%	0	0	0	2	0	2

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Lexical aspect: % activities			Lexical aspect: % activities		
	All	Girls	Boys	All	Girls	Boys
Mean	23.67	26.90	20.12	17.66	17.64	17.68
Median	21.78	24.19	20.83	14.95	17.44	14.45
Std. d.	9.27	9.78	7.36	7.36	5.81	8.68
Minimum	4.17	13.33	4.17	9.62	10.00	9.62
Maximum	48.15	48.15	36.84	45.45	32.26	45.45
Range	43.98	34.81	32.68	35.84	22.26	35.84
N texts with 0%	0	0	0	0	0	0

In N15, on the other hand, not only do we see lower frequencies of activities than in N11; we also find that this variant is used more often by the girls than by the boys, as is also the case with PROG in this group. The difference in means is not great (27% vs. 20%), but we see from Figure 5.3.13 that there is a greater spread below the median in the male group, while the females trend towards the higher values. In this group it is thus possible that the use of activities can account for some of the gender variation.

A11 has lower frequencies than either of the L2 groups, with both the mean and the median around 19%. Gender differences are not great in this group either, but the boys have a slightly higher frequency than the girls, and the whiskers stretch toward the higher end of the spectrum in the male group and toward the lower end in the female group. This pattern is the opposite of the one found in N15 and mirrors the use of PROG in these two groups.

We do not find any such gender differences in A15 and their overall use is the lowest of all the groups, slightly lower than A11. They also have the most homogeneous results, with a range between 10% and 32%, if we disregard the one outlier. All in all, the results do point to

a connection between activities and the progressive, but it is not clear how strong judging only from these descriptive statistics.

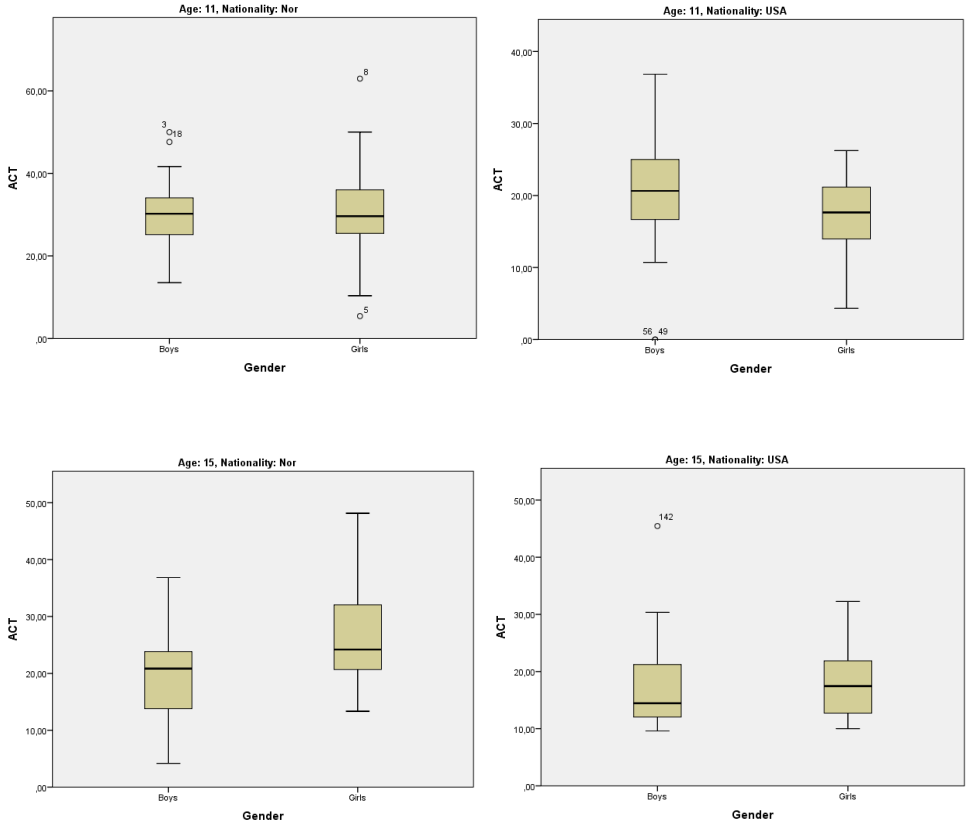

Figure 5.3.13: Distribution of activity verb phrases: all groups.

The connection between these two features in the L2 groups becomes more apparent when the proficiency levels are compared, in Table 5.3.13. These follow the same pattern as with PROG, albeit with smaller differences. There are no notable differences between levels in the youngest group, but the frequency goes down from A2 11 to A2 15. The biggest difference is between A2 15 and B; however, the gap is not as great as their results for PROGRESSIVE would lead us to expect.

Table 5.3.13: Frequency of activity verb phrases: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	Lexical aspect: % activities		Lexical aspect: % activities	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	30.73	30.97	26.83	20.88
Median	28.00	30.00	26.42	21.43
Std. d.	16.46	8.30	12.15	5.20
Minimum	5.41	13.51	4.17	9.52
Maximum	62.96	50.00	48.15	30.77
Range	57.56	36.49	43.98	21.25
N texts with 0%	0	0	0	0

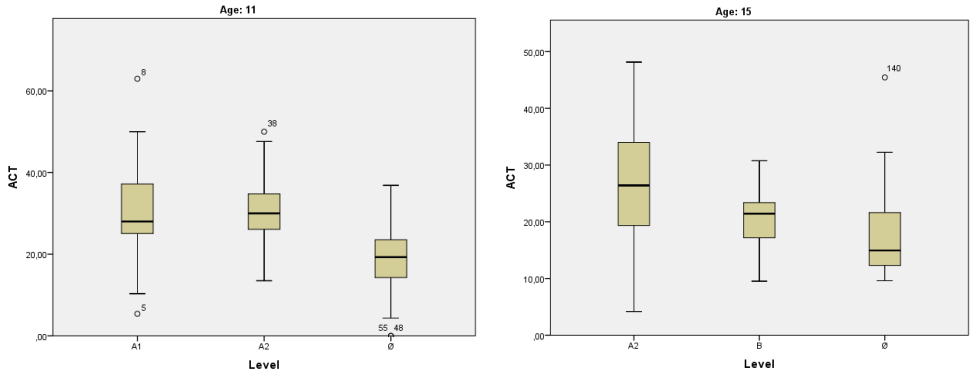

Figure 5.3.14: Distribution of activity verb phrases: proficiency levels.

Figure 5.3.14 above gives a visual representation of the spread in these groups. Here we see that whereas A1 and A2 11 do not differ much, except for a few outliers that create a greater range in A1, levels A2 15 and B display greater discrepancies. A2 15 has a much greater and quite even spread, while B has about the same spread as the native speakers, with most of these texts (75%) near or below the median.

Accomplishments

The Aspect Hypothesis holds that after the initial use with activities, learners expand their use of the progressive to accomplishments. In light of this, it would not be unlikely that differences in the frequency of this variant should also parallel the frequency of the progressive in a group comparison. This does not seem to be the case in this study; instead we find that all the groups

have very similar frequencies, between approximately 29% and 36%, as seen in Table 5.3.14 below.

Table 5.3.14: Distribution of accomplishment verb phrases: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Lexical aspect: % accomplishments			Lexical aspect: % accomplishments		
	All	Girls	Boys	All	Girls	Boys
Mean	34.91	35.41	34.29	30.19	31.06	29.21
Median	35.14	36.84	34.89	29.06	28.41	30.71
Std. d.	8.69	8.46	9.14	12.04	11.17	13.20
Minimum	16.67	21.82	16.67	.00	12.50	.00
Maximum	48.48	48.48	48.48	48.94	47.73	48.94
Range	31.82	26.67	31.82	48.94	35.23	48.94
N texts with 0%	0	0	0	2	0	2

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Lexical aspect: % accomplishments			Lexical aspect: % accomplishments		
	All	Girls	Boys	All	Girls	Boys
Mean	31.17	32.74	29.45	35.08	33.21	36.75
Median	29.77	31.17	28.95	34.35	33.03	36.46
Std. d.	9.33	10.66	7.49	6.43	5.65	6.77
Minimum	9.26	14.29	9.26	22.92	23.61	22.92
Maximum	53.66	53.66	44.83	52.63	42.50	52.63
Range	44.40	39.37	35.57	29.71	18.89	29.71
N texts with 0%	0	0	0	0	0	0

The means are not far from the medians in any of the groups either. N11 has a higher usage than A11, which to a limited degree reflects differences in the use of the progressive, but in the older groups, we see that the native speakers have slightly higher frequencies than the L2 learners, when the opposite might be expected here as well.

From Figure 5.3.15 below, we see that there is not a great spread in the use of this variant in any of the groups, as the relatively low standard deviations also indicate. The older groups are the most homogeneous in their use of accomplishments (not counting outliers); only Girls N15 have a greater spread than the rest. In the younger groups there is greater variation, but nothing as extreme as we have seen in the use of tense forms or PROG. In all the groups, the variation is distributed evenly on either side of the median, with one exception: Girls A11 have an asymmetrical distribution, with a greater spread in the values that represent the 50th to 75th

percentiles and thus a tendency towards higher values. However, none of this indicates any relation to the frequency of PROG.

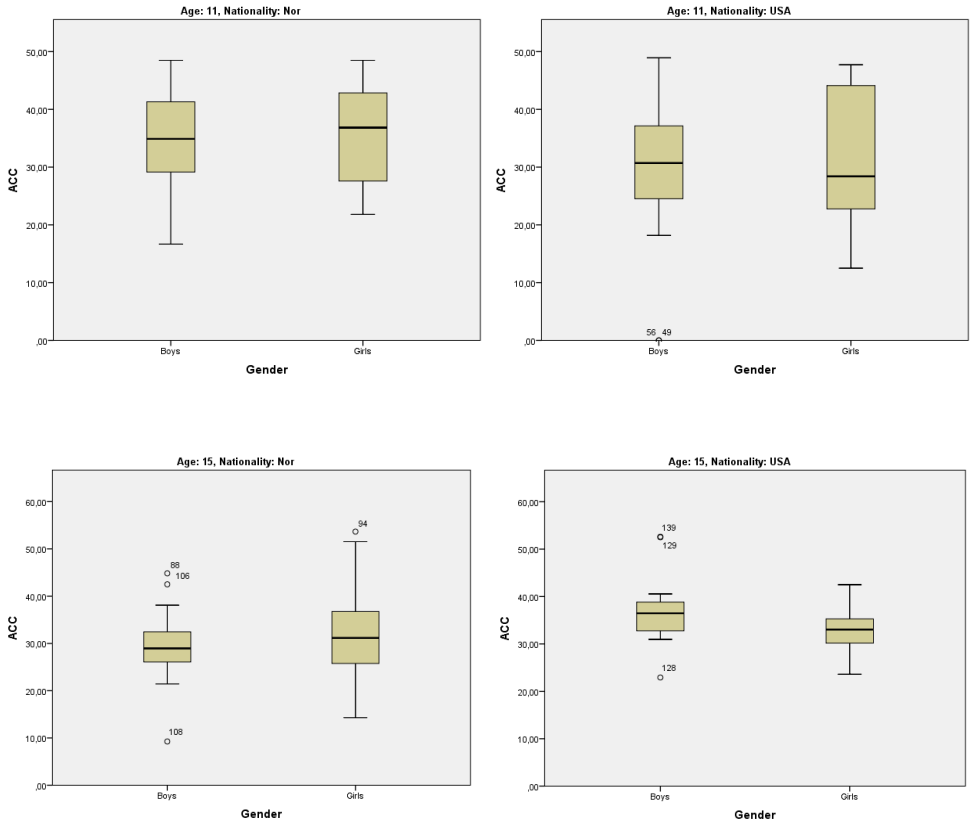

Figure 5.3.15: Distribution of accomplishment verb phrases: all groups.

The picture does not get much clearer when proficiency levels are taken into consideration, in Table 5.3.15. There is a slight increase in means across age/proficiency level groups, before a drop from A2 15 to B. However, A2 15 has a lower median than mean, so all this tells us is that one half of these learners use relatively higher values than the other half use lower values. Otherwise, there are no conspicuous patterns to be gleaned from the use of accomplishments.

Table 5.3.15: Distribution of accomplishment verb phrases: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	Lexical aspect: % accomplishments		Lexical aspect: % accomplishments	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	33.37	35.61	38.79	29.19
Median	34.78	36.36	30.12	29.09
Std. d.	8.50	8.87	10.90	6.96
Minimum	20.00	16.67	14.29	9.26
Maximum	47.62	48.48	53.66	42.50
Range	27.62	31.82	39.37	33.24
N texts with 0%	0	0	0	0

Achievements

The Aspect Hypothesis predicts that achievements is the last lexical aspect category that the progressive spreads to in learners (H6.1), other than states, which supposedly do not take the progressive at all in learner language.

Table 5.3.16: Distribution of achievement verb phrases: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Lexical aspect: % achievements			Lexical aspect: % achievements		
	All	Girls	Boys	All	Girls	Boys
Mean	25.36	22.55	28.87	31.60	33.00	30.05
Median	24.44	21.21	29.58	32.59	31.46	32.80
Std. d.	10.11	10.22	9.03	13.12	12.37	14.09
Minimum	5.26	5.26	14.29	.00	8.70	.00
Maximum	48.65	39.29	48.65	56.52	56.52	50.00
Range	43.39	34.02	34.36	56.52	47.83	50.00
N texts with 0%	0	0	0	2	0	2

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Lexical aspect: % achievements			Lexical aspect: % achievements		
	All	Girls	Boys	All	Girls	Boys
Mean	33.55	28.78	38.78	40.41	40.03	40.76
Median	32.58	29.41	38.10	40.00	40.00	40.19
Std. d.	10.16	8.41	9.44	7.74	7.03	8.49
Minimum	9.09	9.09	18.92	23.53	23.53	25.00
Maximum	60.00	45.00	60.00	56.52	56.52	53.66
Range	50.91	35.91	41.08	32.99	32.99	28.66
N texts with 0%	0	0	0	0	0	0

From Table 5.3.16 above, we see that N11 has a lower proportion of achievements than A11, which is in line with the respective use of PROG in these groups. The use of achievements seems to increase with age, as it is more frequent in the older groups in both L1 and L2 learners. In all groups we see small differences between the means and the medians, which means that the distribution is quite symmetrical.

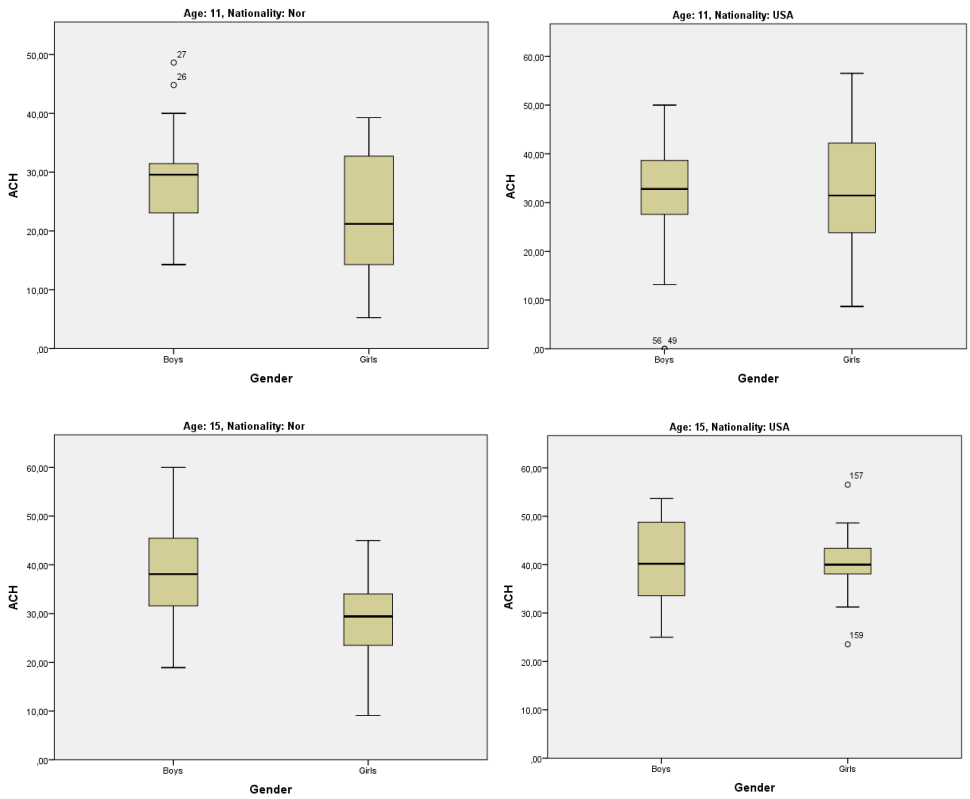

Figure 5.3.16: Distribution of achievement verb phrases: all groups.

The frequency of achievements reflects differences in the use of PROG between the L2 and L1 groups at age 11 as well as age 15; the native speakers use achievements more and the progressive less than the L2 learners. However, we also see that N15 use more achievements than A11, which by this reasoning is the opposite of what would be expected, since the latter group also uses the progressive less. In addition, there are noticeable gender differences in both N11 and N15: in both of these groups, boys have a much higher proportion of achievements than girls. These differences make it hard to explain their use of the progressive with reference

to this variant, as boys have a *higher* ratio of PROG in the youngest group and a *lower* one in the older group. As the Aspect Hypothesis predicts a gradual increase in the use of the progressive with achievements as the learners gain in proficiency, it would also be more consistent with this hypothesis if a higher frequency of the progressive correlated with a lower frequency of achievements in the younger group, rather than in the older one.

In Figure 5.3.16 above, we see the within-group variation in all of the groups, where the gender differences described above become clear. Girls N15 have a consistently lower use than Boys N15, whereas the difference between boys and girls in N11 also can be seen in the greater spread in the female group (if the male outliers are disregarded), towards the lower end of the spectrum. In the native-speaker groups, the older group shows much less variation than the younger one, particularly the girls, who are mainly clustered around the median.

A look at the different proficiency levels proves more revealing. From Table 5.3.17 below, it is clear that the frequency of achievements follows the CEFR levels, with no notable age difference at level A2; the less proficient learners use this variant much less than the ones at the higher levels, with almost equal distance from one level to the next. The use of achievements seems to be a characteristic of language mastery, if these results are anything to go by. This is quite as expected, since such telic, punctual events help to drive a narrative forward.

Table 5.3.17: Distribution of achievement verb phrases: proficiency levels.

	Norwegian 11 (N=44)		**Norwegian 15 (N=43)**	
	Lexical aspect: % achievements		Lexical aspect: % achievements	
	A1 (N=11)	A2 11 (N=33)	A2 15 (N=18)	B (N=25)
Mean	19.51	27.03	29.49	37.46
Median	21.05	27.59	29.22	36.84
Std. d.	8.55	10.02	8.68	8.85
Minimum	5.26	6.45	16.67	24.68
Maximum	34.48	48.65	46.67	60.00
Range	29.22	42.20	30.00	35.32
N texts with 0%	0	0	0	0

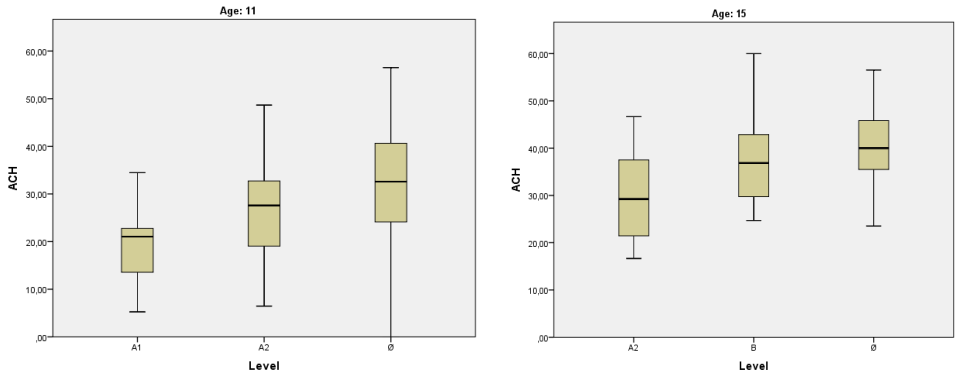

Figure 5.3.17: Distribution of achievement verb phrases: proficiency levels.

Figure 5.3.17 above illustrates these differences in box plots. We find a gradual increase toward native-speaker frequencies in both age groups. All proficiency groups have a moderately wide spread, ranging between 30 and 42 percentage points, but as the whiskers indicate, the whole spread gets higher as proficiency goes up. The fact that the lower end of the scale is higher in A2 15 than in A2 11, although the respective means in these groups do not differ much, may also reflect the relative frequency of the progressive in these groups. In sum, the results for this variant indicate a possible negative correlation with the use of the progressive, even though some of the factors do not quite add up.

States

According to the Aspect Hypothesis, learners do not overextend the progressive aspect, or progressive marking, to state verb phrases. Consequently, texts with higher frequencies of states should have lower frequencies of the progressive. The most interesting thing that can be read from Table 5.3.18 below is the high number of texts in N11 that do not contain any states; as many as 15 learners, evenly distributed between the two genders, do not use this variant at all[99]. In N15, four of the texts lack this variant, three in A15, and only one in A11; this in itself is a good indication of a negative correlation between states and the progressive. By contrast, only two texts – both Boys A11 – do not contain any of the other lexical aspect variants[100].

[99] Reminder: lexical BE has been excluded from the analysis, cf. section 4.8.2; it is likely that these texts include the copula.

[100] The same two texts only use states, as they seem to have taken the instruction text – "write about what you see in the pictures" – all too literally; almost all sentences in these texts are the construction *I see* + complement.

Table 5.3.18: Distribution of state verb phrases: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Lexical aspect: % states			Lexical aspect: % states		
	All	Girls	Boys	All	Girls	Boys
Mean	5.09	5.58	4.48	19.62	18.62	20.72
Median	4.55	4.54	3.81	11.24	12.23	9.33
Std. d.	4.95	5.50	4.22	23.79	16.68	30.30
Minimum	.00	.00	.00	.00	2.53	.00
Maximum	20.00	20.00	12.90	100.00	56.25	100.00
Range	20.00	20.00	12.90	100.00	53.72	100.00
N texts with 0 %	15	8	7	1	0	1

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Lexical aspect: % states			Lexical aspect: % states		
	All	Girls	Boys	All	Girls	Boys
Mean	11.29	11.36	11.20	7.43	9.15	5.88
Median	9.65	13.51	6.06	6.40	6.40	6.33
Std. d.	9.03	6.40	11.42	6.16	7.72	3.90
Minimum	.00	.00	.00	.00	.00	.00
Maximum	40.74	20.78	40.74	29.41	29.41	14.10
Range	40.74	20.78	40.74	29.41	29.41	14.10
N texts with 0 %	4	1	3	3	1	2

On the other hand, we see that the two groups with the lowest proportions of states, N11 (5% mean) and A15 (7% mean), are the ones that represent the extremes in the use of the progressive. N15 has a higher frequency of states than N11, which is the opposite of their respective frequencies of the progressive, and thus in line with the Aspect Hypothesis, but A11 (20% mean) is the group with the highest frequency of states, which should lead to considerably fewer progressives than A15, according to AH. However, the reader is again reminded that these numbers say nothing of which verb phrases are used *with* the progressive, only the proportions of each variant in the learner texts.

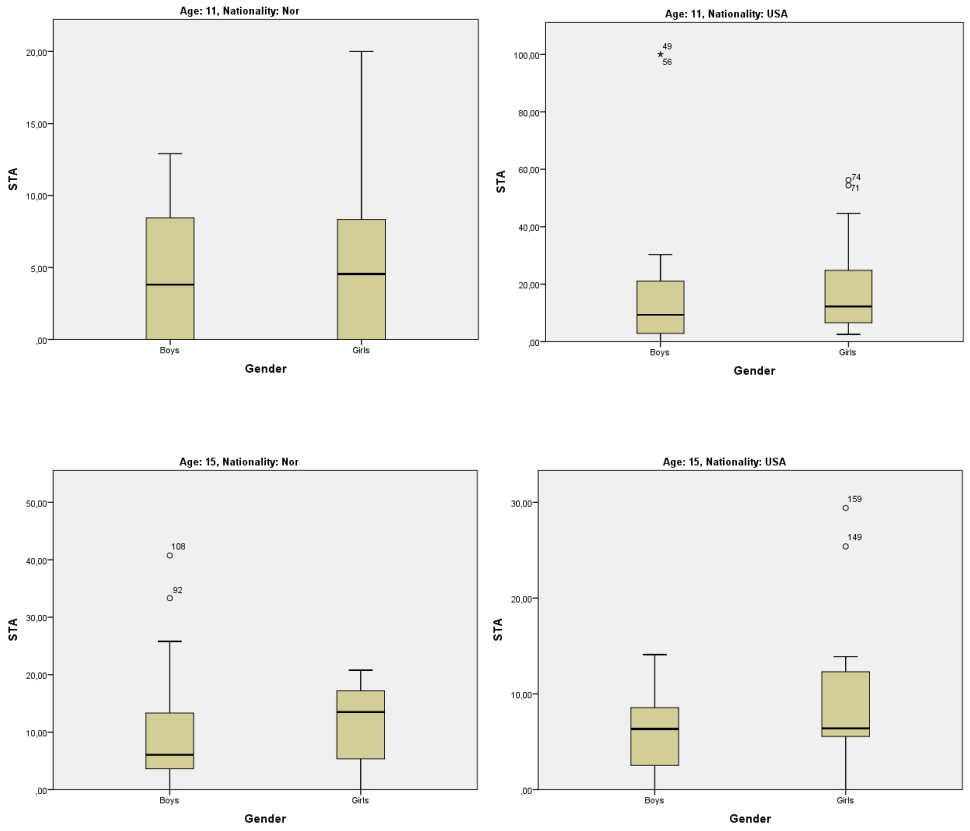

Figure 5.3.18: Distribution of state verb phrases: all groups.

There are some small gender differences for this variant as well, as Figure 5.3.18 shows. N15 is the only group where the median is higher for the females than the males; this is not compatible with their higher frequency of the progressive. In the other groups, the differences in median are not remarkable, but in all of them the girls tend towards higher values than the boys.

Finally, we see that A11 is not only the group with the highest mean, but also the one with the highest standard deviation. While all the other groups have the bulk of the values (i.e. all but the outliers) well below 30%, the topmost whisker for A11 reaches above 40%.

Breaking down the results into proficiency level groups yields a different picture of the situation. While the means mainly reveal age differences, a look at the medians in Table 5.3.19

shows us that the frequency of state verb phrases (other than lexical BE) increases with both age and proficiency, in much the same manner as the frequency of the progressive decreases.

Table 5.3.19: Distribution of state verb phrases: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	Lexical aspect: % states		Lexical aspect: % states	
	A1 (N=11)	A2 (N=33)	A2 (N=18)	B (N=25)
Mean	4.16	5.15	10.58	12.13
Median	2.70	4.55	6.39	12.50
Std. d.	5.28	4.74	9.75	8.66
Minimum	0.00	0.00	0.00	0.00
Maximum	15.79	20.00	33.33	40.74
Range	15.79	20.00	33.33	40.74
N texts with 0%	5	10	3	1

Though the values are low, there is a clear difference between a 2.70% median in A1 and 4.55% in A2 11, as well as an almost equal rise to 6.39% in A2 15; a result which is almost identical to that of A15. The biggest leap, however, is to the B level median at 12.50%. This group thus have a higher frequency of states than their native-speaker peers.

In Figure 5.3.19 we see that level groups A1 and A2 11 display a similar pattern, with values concentrated on the lower side of the median and a greater spread above it, reaching a 20% limit. At age 15, on the other hand, texts at level A2 are skewed towards the lower end of the spectrum, despite the great spread, while at the B level they are skewed towards the higher end. This has the potential to explain some of the variation in the use of the progressive.

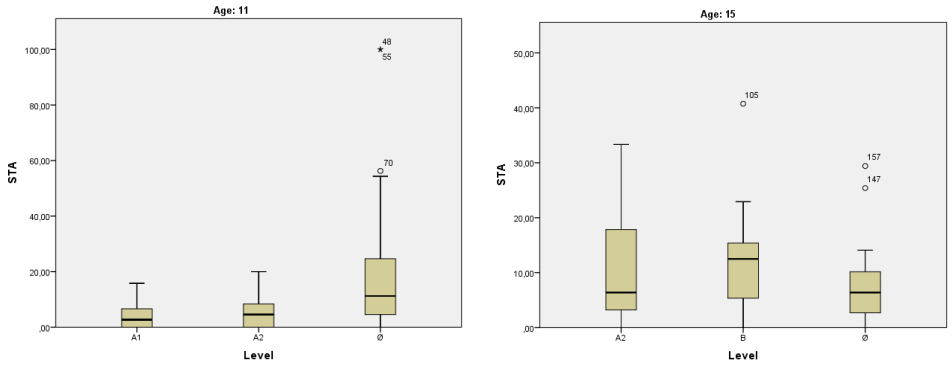

Figure 5.3.19: Distribution of state verb phrases: proficiency levels.

To conclude, these crude observations for this variant seem to show some negative correlation with the L2 learners' use of the progressive and might therefore lend some support to the prediction of the Aspect Hypothesis. In the native speakers, however, the prediction does not quite hold.

5.3.6 Frequency of ING

The last variable examined in this section is the *-ing* participle used in other constructions than the participle. H8 predicts a negative correlation between the frequency of ING and the frequency of PROG; the assumption is that *-ing* is first used in the finite progressive construction and only gradually spreads to other constructions.

Table 5.3.20: Frequency of ING: all groups.

	Norwegian 11 (N=45)			USA 11 (N=38)		
	Frequency of ING: % of all verb forms			Frequency of ING: % of all verb forms		
	All	Girls	Boys	All	Girls	Boys
Mean	0.72	0.60	0.89	10.38	8.68	12.26
Median	0.00	0.00	0.00	7.35	6.65	8.70
Std. d.	1.59	1.45	1.78	11.29	8.02	14.08
Minimum	0.00	0.00	0.00	0.00	0.00	0.00
Maximum	6.70	5.40	6.70	49.00	35.40	49.00
Range	6.70	5.40	6.70	49.00	35.40	49.00
N texts with 0%	36	21	15	4	2	2

	Norwegian 15 (N=44)			USA 15 (N=38)		
	Frequency of ING: % of all verb forms			Frequency of ING: % of all verb forms		
	All	Girls	Boys	All	Girls	Boys
Mean	7.08	5.80	8.49	8.47	8.09	8.80
Median	4.45	4.70	6.50	8.40	7.60	9.05
Std. d.	6.20	5.18	7.02	4.78	5.38	4.27
Minimum	0.00	0.00	0.00	0.00	0.00	2.20
Maximum	28.90	17.50	28.90	24.70	24.70	16.90
Range	28.90	17.50	28.90	24.70	24.70	14.70
N texts with 0%	7	5	2	1	1	0

The results displayed in Table 5.3.20 above tell us what we have already seen in section 5.2: N11, the group with the highest frequency of the progressive as well as of base forms, hardly uses ING at all. In fact, 36 out of 45 never use it, and those who do cannot even bring

the mean up to 1%. This is in stark contrast to both N15 and the native-speaker groups, who all use these forms at least ten times as much. These numbers are quite convincing in their preliminary support of H8. We also see that in N15, there are seven texts with no tokens of this variable, five of which are written by girls. The girls also have lower scores than the boys, both median and mean; this pattern is the opposite of their scores for the progressive, in line with H8.

In A11 there are only four texts without ING, two from each gender, meaning that almost all of these informants are capable of multiple uses of the *-ing* form; the progressive and others. This is the case for A15 as well, with only one text with no occurrences. A11 also has the highest mean frequency; both native-speaker groups have higher means than N15, but it is somewhat surprising that the youngest one should have a higher score. In A11 we also see that boys have a higher mean than girls, which was not expected, given their high scores for the progressive.

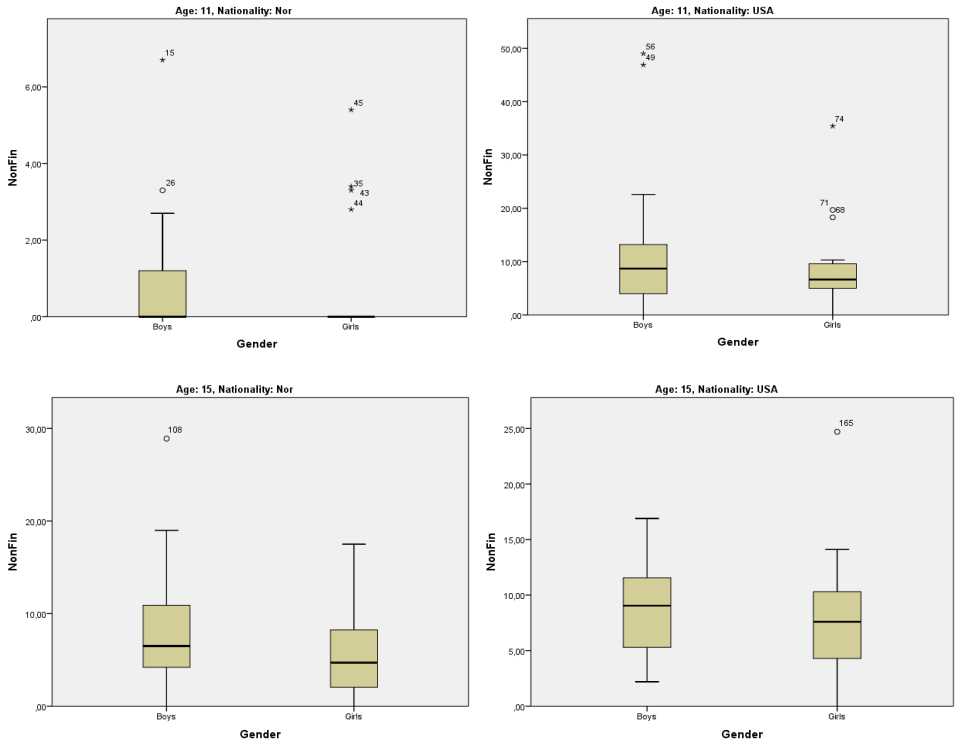

Figure 5.3.20: Distribution of ING: all groups.

Figure 5.3.20 above shows that what little use there is, is fairly evenly distributed above the 0% median in Boys N11, whereas all the girls who use these constructions are extreme outliers. There are outliers in the other groups as well, but the spread is otherwise quite even, mostly below the 20% mark. The only exception is Girls A11, whose scores mainly cluster around the median.

Table 5.3.21: Distribution of ING: proficiency levels.

	Norwegian 11 (N=44)		Norwegian 15 (N=43)	
	Frequency of ING : % of all verb forms		Frequency of ING : % of all verb forms	
	A1 (N=11)	A2 (N=33)	A2 (N=18)	B (N=25)
Mean	0.00	0.82	3.87	9.68
Median	0.00	0.00	3.30	8.00
Std. d.	0.00	1.61	3.93	6.41
Minimum	0.00	0.00	0.00	1.90
Maximum	0.00	6.70	13.90	28.90
Range	0.00	6.70	13.90	27.00
N texts with 0%	11	25	6	0

In Table 5.3.21 above, we clearly see what difference both age and proficiency level makes when it comes to the frequency of this variable. At the A1 level, none of texts have any tokens of non-finite *-ing*; all the tokens in this age group are found at the A2 level, which nonetheless still does not reach a 1% average. We also see that the eight A2 11 texts that include non-finite *-ing* only make up about 25% of the group total. In contrast, two thirds of the older learners at the same level (12/18) use this variable; the mean, however, is only 3.87%. Once again we see that the B level texts diverge from the rest, with no texts at 0% and a mean at almost 10%. These results show clearly that non-finite *-ing* follows the opposite development of the progressive in these learner groups, and thus support H8.

In Figure 5.3.21 below, we see that all the A2 11 texts with ING are considered extreme outliers, whereas the A2 15 texts are more evenly spread, albeit skewed below the median. At the B level, the values range from 1.90% to 28.90% and we see that the spread is very similar to the same-age native speakers. All in all, ING seems to be an important correlative in the L2 groups, but no such pattern is apparent in the native speakers.

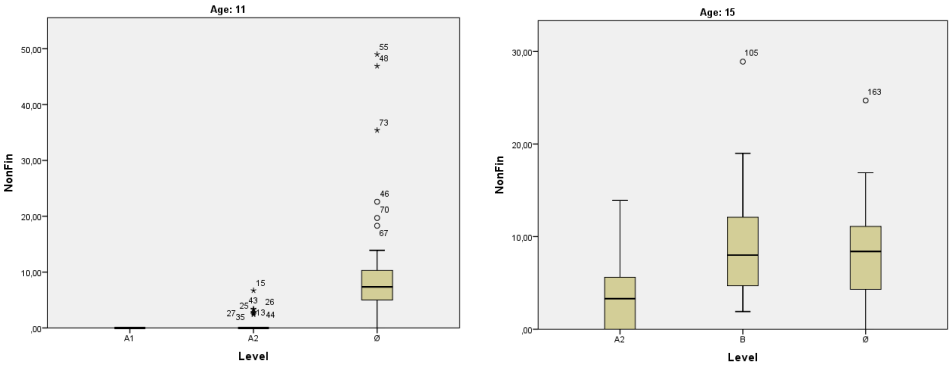

Figure 5.3.21: Distribution of ING: proficiency levels.

5.3.7 Individual differences: summary

Section 5.3 has presented the variation both within and between L1, age, gender, and proficiency-level groups. The only conclusive thing we can derive from the information offered above is that the variation is great when it comes to almost all the variables examined in this study. The groups are in many cases so heterogeneous that, following Jarvis' (2000) criteria, it is tempting to rule out L1 influence altogether when it comes to the use of the progressive. Whatever the case may be, such variation makes it difficult to make sense of the data just from the descriptive statistics. Nonetheless, some patterns stand out from the chaos. Considering the extralinguistic variables first, we see that there are clear gender differences, but they sometimes seem to follow the use of the linguistic variables and at other times they appear to be random. Age differences are usually clear between the L2 groups, but less often so between the L1 groups. We often, but not always, see expected differences between the L1 and L2 groups, but as often as not, this only applies to the A1 and A2 proficiency levels; learners at the B level tend to perform on a par with native speakers.

As for the linguistic variables, the general tendency is that we find support for the hypotheses set forth in section 3.5, but there is enough contradictory evidence that statistical tests are needed to sort the wheat from the chaff. For the variable TENSE, base and present tense forms seem to correlate with the frequency of the progressive, whereas past tense forms show a negative correlation, as predicted. As for LEXICAL ASPECT, activities, achievements and, to some extent, states showed the expected type of variation, whereas there were virtually no differences between the groups in the use of accomplishments. Finally, the use of ING gives an indication that at least L2 learners do not learn to use these constructions until they gain a better understanding of the progressive, including fairly consistent use of the auxiliary.

However, the relative impact of all of these factors is still unclear. Therefore the next section presents much-needed tests of statistical significance, in an attempt to untangle this intricate web of variables.

5.4 Multivariate regression analyses

The present study seeks to find *patterns* in the use of the English progressive construction in learner language, as well as the place, or role, of this construction in an overall interlanguage *system*. In order to gain information about such a system, the use of the progressive as the dependent variable in the study must be measured against the presence (extralinguistic) or use (linguistic) of each of the independent variables. However, it is not enough to view these variables separately, as was done in the previous section. We have so far learned much about the variation in the learner groups for each linguistic variable, but to gain an understanding of the relative influence of each variable, they should all be considered together. Rather than investigating the statistical significance of the variation between and within learner groups for each feature in isolation, I have chosen to employ a multivariate linear regression analysis. This is a complex procedure, but with considerable advantages; it gives a clear overview of both the strength and the direction of the impact each of several independent variables has on the dependent one. In addition, in its treatment of each of the variables, the model continuously controls for the effect of the other variables. In section 4.10.2, the material was found suitable for such an analysis and the results are presented here. The reader is again reminded that these results show effects on the *text level*. In other words, we are given information about the role of the progressive in relation to other variables found in samples of each learner's text production, in order to detect patterns in *learner usage*, not in the collective use of the progressive in general. Ideally, each linguistic variable should be given in form of its interaction with the progressive on the token level, *in each text*, but this measure would give too many texts with low or zero values. Therefore this part of the analysis tests co-occurrences on the text level rather than on the token level.

5.4.1 Block analysis

As indicated in section 4.10.2, the nature of the study and of the variables is such that the best way to deal with the data is to group the variables in order to do a block analysis. This makes it easier to evaluate the effect of the variables as coherent components, instead of just separately, particularly in the cases where the original variants of a variable have been recoded as new

variables. With block analysis, we can treat them as belonging to the same unit. The blocks are as follows:

1. *Nationality*

The first block measures the effect of having English as an L1 or an L2. The block contains only one variable, *Nor*[101], because one of the primary goals of the study is to find out whether and to what extent American native speakers and Norwegian L2 learners differ (quantitatively) in their use of the progressive, a question addressed in H1. By keeping this as a separate factor and making it the first of the blocks, we can first look at how the informants' L1 affects usage and next see whether the other variables have any influence on this effect.

2. *Social background*

Both the Norwegian and the American group can be subdivided based on *age* and *gender*. These two variables, *A11*[102] and *Girl,* form the second block. This way we learn more about how much the frequency of the progressive correlates with extralinguistic factors, in view of H2 and H3.

3. *TENSE*

The third block groups *Base, Past* and *Present*, which were originally variants of one variable. From this we can add information about the explanatory power of the choice, or non-mastery in the case of Base, of tense forms. H5 proposes significant effects related to this factor.

4. *LEXICAL ASPECT*

This is perhaps the most interesting block, as it tests the Aspect Hypothesis, as outlined in H9. The variables *Activities (ACT), Accomplishments (ACC), Achievements (ACH)* and *States (STA)* are grouped in order to show the combined effect of verb phrase semantics, originally defined as the variable *lexical aspect*.

5. *ING*

Finally, the last linguistic variable, ING (labelled *NonFin* in SPSS), is added as a separate block, to determine whether the presence of V-*ing* in other constructions have any bearing on the frequency of the progressive and on the effect of the previously added blocks.

[101] As the variants of the non-metric variables are assigned the dichotomous metric values 1 and 0, to indicate presence or absence of one of the variants, all labels reflect the variant given the positive value.

[102] Not to be confused with informant group A11; in the block analysis, this label stands for 'age 11' as SPSS will not accept a purely numerical label.

One set of variables is not added to this analysis; *proficiency level* is a feature that only applies to the Norwegian learners and SPSS would reject these dichotomous variables because of the large number of informants with missing data. Proficiency level is therefore treated separately in a new regression analysis later on.

5.4.2 Results

In Table 5.4.1 below, the results are summed up in a model[103] summary. The first thing we notice is that the results for all the blocks are highly significant – except for block 5, where the effect of ING is measured. This seems to mean, quite surprisingly, that the quantitative variation in the dataset can largely be explained without reference to this last variable. For blocks 1 to 4, each added block has an effect on the frequency of the progressive that is significant at the .005 level or less; this means that it is very unlikely that the influence of these factors is random. When it comes to ING, on the other hand, the significance level is at .791, which means that there is a great chance that the variation is entirely random.

Table 5.4.1: Model summary of multivariate regression analysis: all independent variables, except proficiency levels.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,336[a]	,113	,107	22,277403504	,113	20,713	1	163	,000
2	,411[b]	,169	,154	21,692115761	,056	5,457	2	161	,005
3	,492[c]	,242	,214	20,910289993	,073	5,088	3	158	,002
4	,719[d]	,517	,485	16,916826167	,274	21,850	4	154	,000
5	,719[e]	,517	,482	16,968113321	,000	,070	1	153	,791

a. Predictors: (Constant), Nor

b. Predictors: (Constant), Nor, A11, Girl

c. Predictors: (Constant), Nor, A11, Girl, Present, Base, Past

d. Predictors: (Constant), Nor, A11, Girl, Present, Base, Past, ACC, ACT, ACH, STA

e. Predictors: (Constant), Nor, A11, Girl, Present, Base, Past, ACC, ACT, ACH, STA, NonFin

We also see that the R^2 value, i.e. effect size, increases with each block added, again with block 5 as an exception. This is as expected, as R^2 will usually increase when variables are added; we are more interested in the adjusted R^2, which takes the accumulative effect out of the

[103] The blocks are called 'models' in SPSS.

equation and leaves us with a less dependent effect of the variables in each block. We still find that the effect size increases with each block, and thereby gains in explanatory power, until it reaches 0.485 with block 4. In other words, the model accounts for as much as 48.5% of the variation in the dataset; this means that the variables included in the analysis to a substantial degree help to explain the frequency of the progressive in the individual texts. Adding block 5, however, yields a slightly lower effect size, which in turn means that ING is a variable that has no direct correlation with the production of the progressive in the individual learner, contrary to the prediction in H8.

We can also look at the standard error of the estimate, which decreases with each added block, before it goes slightly up again with block 5. This information tells us that the values move closer to the regression line with each added block from 1 to 4, which is also evidence of increased explanatory power.

Moving on to a more detailed overview, we learn much from Table 5.4.2 below about the relative contribution of each of the variables in the individual blocks. As the first block only contains the variable *nationality* (language background), here known as *Nor,* we get an answer to the question of whether Norwegian learners overuse the progressive compared to American native speakers. With no other variables involved, the differences between the L1 and L2 group stand out clearly and we see that the B value for the Norwegian group as a whole is almost 16 percentage points higher than the constant. In other words, all other things being equal, Norwegian L2 learners in the present dataset use the progressive twice as much as native speakers of American English. This is significant at the .000 level.

Next, age and gender are added, in block 2. We have already seen that adding this block gives a change in effect size that is highly significant, but we now find that this is exclusively based on the age (*A11*) of the informants; age is significant at the .001 level, but with a significance level of .734, it is very likely that the gender variation we have seen all along is purely random. This lack of significance is somewhat surprising, but not entirely unexpected, given that the differences detected throughout section 5.3 did not seem to follow any easily discernible pattern. Such a finding attests to the strength of the multivariate regression analysis, in that such calculations report the presence or absence of correlations with much more precision than the impressionistic observations based on the descriptive statistics in the previous sections in this chapter. This is not to say that gender differences in the use of the progressive are not "real"; only that they are likely attributable to other factors than gender in itself. In addition, gender differences found in the present dataset are so random that they would probably not be detected in a different sample of the population. Finally, we should note that adding this

block does not have any effect on the significance of Nor, which is still as high as when this variable is considered alone; this means that the other social factors cannot explain the differences between the two nationalities.

Table 5.4.2: Multivariate regression analysis; coefficients.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	15,658	2,555		6,127	,000
	Nor	15,835	3,479	,336	4,551	,000
2	(Constant)	10,661	3,417		3,120	,002
	Nor	15,818	3,391	,335	4,665	,000
	A11	11,147	3,381	,237	3,298	,001
	Girl	-1,155	3,386	-,025	-,341	,734
3	(Constant)	-26,510	22,258		-1,191	,235
	Nor	10,266	4,021	,218	2,553	,012
	A11	9,115	3,737	,194	2,439	,016
	Girl	-1,688	3,293	-,036	-,513	,609
	Base	,521	,248	,502	2,101	,037
	Past	,268	,219	,377	1,223	,223
	Present	,452	,223	,629	2,027	,044
4	(Constant)	23,073	35,605		,648	,518
	Nor	,622	3,431	,013	,181	,856
	A11	4,339	3,196	,092	1,357	,177
	Girl	-3,824	2,727	-,081	-1,402	,163
	Base	,232	,206	,223	1,123	,263
	Past	,221	,178	,311	1,242	,216
	Present	,323	,181	,450	1,786	,076
	ACC	-,523	,331	-,210	-1,579	,116
	ACH	-,705	,318	-,349	-2,220	,028
	ACT	,819	,305	,360	2,690	,008
	STA	-,613	,314	-,362	-1,952	,053
5	(Constant)	22,592	35,798		,631	,529
	Nor	,737	3,489	,016	,211	,833
	A11	4,457	3,261	,095	1,367	,174
	Girl	-3,765	2,752	-,080	-1,368	,173
	Base	,234	,208	,226	1,129	,261
	Past	,223	,179	,313	1,245	,215
	Present	,324	,182	,451	1,785	,076
	ACC	-,525	,333	-,211	-1,580	,116
	ACH	-,705	,319	-,349	-2,213	,028
	ACT	,821	,306	,360	2,687	,008
	STA	-,615	,315	-,363	-1,952	,053
	NonFin	,038	,193	,012	,199	,842

a. Dependent Variable: Percent prog of finite verbs

Next, we turn to the linguistic variables. Block 3 gives us the effect of differences in the use (or non-use) of tense forms. H5 predicts a negative correlation between the progressive and past tense forms on the one hand, and a positive correlation with base and present tense forms

on the other. For the variables BASE and PRESENT, the correlations are indeed positive, as well as significant below the 5% level. However, the significance is not as high as we have seen for *Nor* and *A11*. Yet, these results support H5. Past tense forms, on the other hand, do not have the hypothesized effect. For one thing, the correlation takes the "wrong" direction; it is positive, rather than negative at .268 percentage points above the constant. Second, the change this adds to the model is not statistically significant.

The effects of taking tense differences into the equation are informative in themselves, but in addition we see that including these variables changes the significance of Nor and A11. They are still highly significant, but now at the 1% level. Some of the differences between the nationalities may perhaps be explained by the use of tense, but on the whole, the former is still the variable with the greatest explanatory power; even when other variables are included, the average Norwegian text still has 10 percentage points more progressives than the average native-speaker text. Gender is still a non-significant variable.

With block 4, however, the picture is dramatically altered, when the variables corresponding to the lexical aspect categories are added. According to H9, the strongest positive correlation should be between the progressive (or PROG) and activities, then less with accomplishments, and finally the progressive should spread to achievements last, which does not make a positive correlation likely. With states, there should be a clear negative correlation, since learners are predicted to shy away from state progressives entirely. The positive correlation with activities is attested in the material and it is significant below the .01 level. With accomplishments, the correlation is neither positive nor significant. For achievements, we see a negative correlation, which is not unexpected; what is less expected is the level of significance, which is well below 5%. This is noteworthy in itself, but even more so in light of the result for states: the correlation is negative, but the influence only approaches significance, just above the 5% level. In other words, learners use the progressive less frequently when there is a high proportion of achievements in a text than when the relative frequency of states (except lexical BE) is high. This result is not in line with the Aspect Hypothesis.

Another unexpected result concerns the effect this block has on the other variables. Until now, both *Nor* and *A11* have proved to be significant factors. This changes when lexical aspect is added. Age is now 17% likely to be a random factor and as far as *Nor* is concerned, these correlations are strong enough to reduce the influence of L1 to non-significance. The likelihood that a different sample of the population would not display the same differences is as high as 85.6% when lexical aspect is accounted for. In addition, the effect of tense is strongly reduced; none of these variables has a significant effect with block 4 added; only PRESENT is anywhere

near statistical significance at 7.6%. When all of these variables are considered together, only lexical aspect has any explanatory power; these results strongly support the AH.

Finally, block 5 includes ING (*NonFin*), which has already been accounted for above: adding this variable does not do anything for the variation in the material.

What the above analysis has shown is that the factors that seem to have the greatest explanatory power are activities and achievements. The L1 factor appears to be significant because Norwegians on average use more activities and Americans more achievements. As the explanatory power of the model as a whole is close to 50%, the consequence is that these two variables alone account for this much of the variation. To test whether this is a correct interpretation, an additional regression analysis is performed, with only these two variables. The results are presented in the tables below; Table 5.4.3 gives the model summary and Table 5.4.4 the coefficients.

As expected, the two predictors ACH and ACT have a very high effect size; the adjusted R^2 value tells us that these two alone account for 46.6% of the variation in the dataset, only slightly less than when the other variables are included. This result is significant at the .000 level.

Table 5.4.3 and table 5.4.4: Multivariate regression analysis: the variables ACH and ACT.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,687[a]	,472	,466	17.23225081

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,277	6,711		-,041	,967
	ACT	1,414	,148	,621	9,585	,000
	ACH	-,249	,131	-,123	-1,899	,059

a. Dependent Variable: Percent prog of finite verbs

When we look at the coefficients, however, we learn that only ACT has this high level of statistical significance; ACH merely approaches significance with a p value of .059. Though not strictly significant, this value is low enough to be noteworthy, but ACH does not seem to have the same explanatory power as ACT.

To be absolutely certain that the above observation is correct, we can reduce the analysis even further, and perform a regression analysis with ACT as the only predictor. The results for this analysis are given in Table 5.4.5 and 5.4.6. It turns out that even with ACT as the sole predictor, this variable has an effect size of .461 and the differences in the use of the progressive correlated with ACT are significant at the .000 level. This means that the number of activities

in the individual texts explains around 45% of the variation in the dataset when it comes to the quantitative use of the progressive. Needless to say, the strong association between activities and the progressive predicted by the Aspect Hypothesis is supported by these results.

Table 5.4.5 and table 5.4.6: Regression analysis, ACT.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,679[a]	,461	,457	17.36949174

a. Predictors: (Constant), ACT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-11,395	3,306		-3,447	,001
	ACT	1,546	,131	,679	11,798	,000

a. Dependent Variable: Percent prog of finite verbs

Before this section is concluded, one last factor needs to be considered. As already mentioned, proficiency level could not be included in the first analysis, because this is a feature that only applies to the texts written by L2 learners. However, we have seen in section 5.3 that there are great differences between the proficiency groups and that learners at the B level have values similar to those of same-age native speakers for both the progressive and activities. It is therefore a pertinent question whether the learners' proficiency level has any significant effect on their use of the progressive, compared to that of native speakers. A separate multivariate regression analysis provides an answer to this question. This time, there is no need for a block analysis, as the variables in the analysis are originally variants of a single variable in this study and one is not added onto another in order to observe differences in effect size. The variables are dichotomous, so that for instance in the case of *A1*, all A1 texts are given the value 1 and all the others 0; the Norwegian texts thus get a positive value for their respective proficiency levels, whereas the American texts are always at 0 and thus represent the constant, as was the case with the variable *Nor*; the constant shows us the expected value of *ProgPer* when the value of all the other (independent) variables is 0. Given that the writers of these texts are not Norwegian, the results show how each of the Norwegian proficiency groups deviate from the native-speaker means, though with no regard for age or gender differences in any of the groups.

Table 5.4.7 and 5.4.8 below show us that the explanatory power R^2 for the model as a whole is 25.7%. This is a very high number, which once again attests to the importance of considering the learners' proficiency level, even though much of the variation has already been explained with reference to the use of ACT; the two factors are thus most likely linked, as the results in section 5.3.5 hinted at. We are also given the significance of each of the coefficients and here we see that while native-speaker texts (the constant) are expected to have 15.66% progressive verb phrases on average, an A1 text is expected to have B values 25.54 percentage

points higher than this (41.2%). This result is highly significant (p. = .000). Similarly, texts at the A2 level have on average 23.17 percentage points more progressives than the constant; a difference with the same high level of significance as for A1.

Table 5.4.7 and table 5.4.8: Multivariate regression analysis, proficiency levels.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,507[a]	,257	,243	20.51676447

a. Predictors: (Constant), B1, A1, A2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	15,658	2,353		6,653	,000
	A1	25,542	6,373	,282	4,008	,000
	A2	23,168	3,714	,455	6,238	,000
	B1	-3,027	4,661	-,047	-,649	,517

a. Dependent Variable: Percent prog of finite verbs

A very different outcome can be seen for the B level: not only is the expected value for a B level text three percentage points *lower* than the constant; the result is not even statistically significant (p. = .517). Such a result indicates that Norwegian learners at CEFR level B1 or above have an understanding of the quantitative use of the English progressive, as well as its distribution in the narrative genre, which matches that of native speakers. In other words, when Norwegian learners reach a certain general level of English, overuse of the progressive no longer seems to be any reason for concern.

5.4.3 Summary

The multivariate regression analyses presented above have made it clear that there is only one really important positive correlate for the presence of progressive verb phrases in the texts in this dataset, namely phrases with the semantic value *activities*. While the presence of *achievements* is negatively correlated with progressives at a statistically significant level, the explanatory power of activities is much stronger. The results are based on the presence or absence in a text of each feature *individually,* so that *co-occurrence* in the verb phrase is not measured in this part of the analysis. Although this approach is different than in any other study that tests the Aspect Hypothesis, as far as I am aware, the results clearly support the part of the hypothesis that postulates a correlation between the progressive and activities (H6.1). The correlation can in some ways be said to be stronger than previously assumed, in that writers with a relative preference for activities also seem to have a preference for the progressive, regardless of pairings in the individual verb phrase. As for the second part of the hypothesis (H6.2), the predicted negative correlation with *states* is not as strong as expected, though the

results are close to statistical significance. This may well be a consequence of leaving out the most frequent state verb, lexical BE.

Other variables do not prove to have the same explanatory power in this dataset, but the background variables L1 and age, as well as the linguistic variable TENSE, all show statistically significant variation before lexical aspect is included. This means that these are all factors worth looking further into in the following sections of this chapter. *Gender*, on the other hand, is a variable that does not give significant results and the apparent differences between these groups are most likely attributable to other factors. This is interesting in itself, but beyond the scope of the present study; gender is therefore a factor that is excluded in the further analysis of the material. On the other hand, much of the variation in the dataset can be explained by the learners' *proficiency level*; this variable will therefore be referred to when relevant, although the differences between age and nationality groups are still primary.

On an individual basis, the use of ING does not have any direct correlation with the frequency of the progressive. However, there are such clear differences in the use of this variable, not only between L2 learners and native speakers, but also between the L2 age and proficiency groups, that this feature should still be explored in its own right. There is still the question of whether the Aspect Hypothesis applies to non-finite contexts as well (H10), which is yet unresolved.

All in all, the results presented above clearly justify a thorough investigation on the verb phrase level, as regards both tense and lexical aspect. Such an investigation cannot be based on individual texts, as the amount of production varies too much and the numbers are too small to be reliable[104], but held up against the results from the multivariate regression analysis in the present section, group scores, as presented in the next sections (as well as in most AH studies) may give just as great a contribution to the bigger picture.

[104] E.g. if a text contains two activity tokens, the only value options are 0 %, 50 % or 100 % progressive marking; clearly, this is not fine-grained enough for a valid analysis, as opposed to a text with e.g. 15 activity tokens. Thus, the variation in the material does not lend itself readily to such scrutiny. But see Gujord (2013) for a successful analysis using this measure with the more frequent past-time contexts in her corpus.

5.5 Tense

This section looks at the progressive and its co-occurrence with tense inflection, and thus deals with H5, which predicts positive correlations between the progressive and present tense inflection as well as with no overt tense marking, i.e. base forms. As seen in section 4.8.2.2, this distinction is somewhat problematic, as present tense marking is only overt in the third person singular. Thus, in all other person/number categories, uninflected forms are interpreted as realizations of the present tense, although this may not always be clear in the case of low-proficient learners. Nonetheless, such a classification is deemed preferable to the alternative, which is to classify native-speaker usage as partially non-tensed. With past tense inflection, which is usually easily distinguishable from the other two categories, a negative correlation is predicted. We have already seen in section 5.4 above that on the text level, the predictions hold for present tense and base forms, but not for past tense forms, where the correlation is neither negative nor statistically significant. Whether similar results apply on the verb phrase level will be seen below.

In this and the following sections, the numbers are given as group scores rather than group means. Both measures would likely have been equally representative, but most tense/aspect studies present group scores (e.g. Bardovi-Harlig 2000, Robison 1995) and following this tradition thus makes comparisons easier.

5.5.1 Overview of total use of tense forms

Table 5.5.1: Tense distribution in raw numbers.

	base	past	present	Total
N11	**534**	**140**	**629**	**1303**
A1	150	37	63	250
A2 11	378	95	528	1001
N15	**150**	**527**	**1295**	**1972**
A2 15	80	105	414	599
B	59	412	869	1340
A11	**46**	**890**	**816**	**1752**
A15	**19**	**597**	**1248**	**1864**
Total	**749**	**2154**	**3988**	**6891**

To start with, Table 5.5.1 gives an overview of tense use in the dataset, in raw numbers to give the reader an idea of what quantities the percentage scores refer to in the remainder of this section. The numbers are given for the four L1/age groups, with the Norwegian proficiency groups added. We see that in total the present tense is the most frequent by far, used almost twice as often as the past tense, and more than five times as often as base forms.

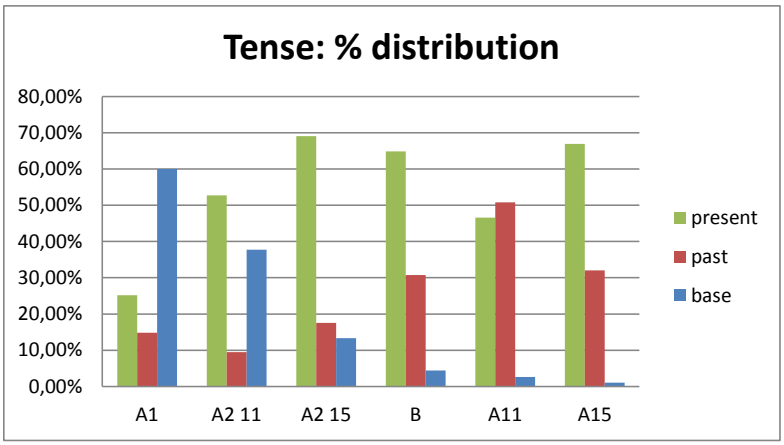

Figure 5.5.1: Tense distribution in percentages.

As we already know (see section 5.3.4), the various groups differ in their use of tense. This is better illustrated in Figure 5.5.1 below, where the bar chart shows the percentage-wise distribution of tense forms in each of the proficiency-level groups as well as the two native-speaker groups. On the group level, then, we see a steady decline in the use of BASE, from 60% use in the A1 group to A15's 1% at the other extreme. The use of PAST and PRESENT is more variable; as learners master the use of tense inflection, this usage is a matter of preference, and the informants predominantly seem to prefer to tell the Frog Story in the present tense. For the Norwegian learners, an explanation might be found in the non-mastery of past tense forms, since the B group uses these more than any of the others, but this does not explain why American 15-year-olds make the same choice, and certainly not why the American 11-year-olds are the only ones who marginally prefer the past tense over the present. The results are, however, in line with Berman and Slobin (1994: 130-42), who – in their native-speaker Frog Stories – find that the great majority of their adult informants use the present tense as their dominant tense, while the 5- and 9-year-olds (particularly the latter) prefer the past tense. Consequently, the younger groups also have higher percentages of past progressives.

5.5.2 Within-category distribution

The next bar chart, in Figure 5.5.2, shows the proportion of progressives of each tense form, in percentages. This within-category distribution – as opposed to the across-category distribution above – is quite revealing from a developmental perspective: In the A1 group, the progressive is highly frequent in all tense forms, and varies from 35% in the past tense to 43% in the base form. A relatively even distribution like this could be seen as an indication that learners at such

a low level of proficiency are not sensitive to the temporal bias of the progressive or the nonprogressive aspect.

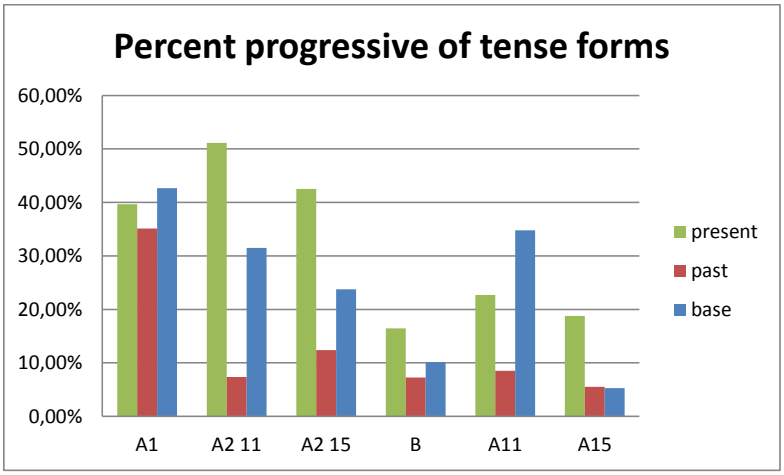

Figure 5.5.2: Percent progressives of each tense form.

We have previously seen (section 5.3) that this group has an extreme range in their use of all tense and aspect forms, and at first glance, their undiscriminating use of tense/aspect combinations points to exactly the kind of "willy-nilly" choice of the progressive that Kellerman (1997) observes, and that Housen (2002b) indicates in his material as well. However, behind the high percentage of past progressives in group A1, we find only 13 tokens, contributed by a single writer; informant 1095, who has also produced 11 past tense nonprogressives in an almost exclusively past tense text. There are six others in this group who use the non-progressive past tense once or a few times, and this little subgroup has a relatively low and evenly distributed use of the progressive (15 tokens vs. 71 tokens of NON). By contrast, the four who do not use the past tense at all display the opposite pattern (118 PROG vs. 17 NON). This difference might be indicative, in some of the learners, of an attempt at a past-time orientation which precludes a high number of progressives. Conversely, a present-time orientation then leads to the progressive as the verb form of choice. If this is the case, the use of the progressive is perhaps not as random as it might seem.

One level up, the pattern is completely different; A2 11, whose total use of the past tense is the lowest of all groups, reserves PROG for only 7% of all past tense tokens. This score is practically identical to that of the B group and similar to the native-speaker groups, while all of these have a much higher total use of past tense forms. In other words, there is more use of past

progressives in the most proficient groups, both L1 and L2, than in A2 11. In addition, A2 15 has a higher proportion of past progressives than A2 11, which makes the pattern for past progressives reminiscent of the U-shaped development observed in Lightbown (1983). In A2 11, 20 out of 33 texts contain at least one past tense token, but only two are predominantly written in the past tense; these two only contain one progressive token each (one past and one present).

5.5.3 Across-category distribution

The pie charts in Figure 5.5.3 to Figure 5.5.8 below show how tense is distributed in each of the grammatical aspect forms in each of the learner groups. If we first consider proficiency group A1, in Figure 5.5.3, the striking observation is how little the tense distribution differs in the two aspectual forms.

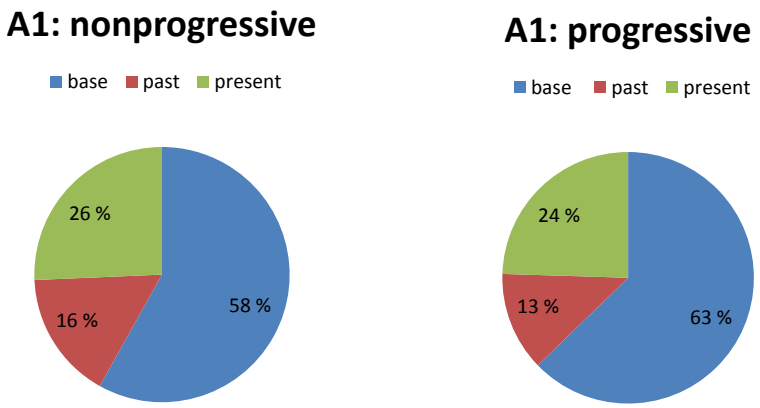

Figure 5.5.3: Nonprogressive and progressive tense distribution in group A1.

This group mainly does not use any target-like tense inflection, as evidenced by around 60% use of BASE in both aspectual categories. In the verb phrases that are marked for tense, PRESENT is used about twice as often as PAST in PROG as well as NON. Given that tense forms are relatively little used in this group and the progressive is very frequent, it is not unlikely that the progressive is seen as a tense form rather than an aspectual form in the early stages of learning, particularly since the learners are accustomed to coding for tense in their L1 (cf. Jarvis' criterion of crosslinguistic performance congruity; see section 2.2.7.5). However, as was noted above, the number of tokens is low and unevenly distributed between texts, so this

result may well be misleading. In fact, if informant 1095 were taken out of the equation, A1 would have no past progressives as well as a smaller proportion of past nonprogressives (10%). On the other hand, the proportion of present tense tokens would not be greatly affected.

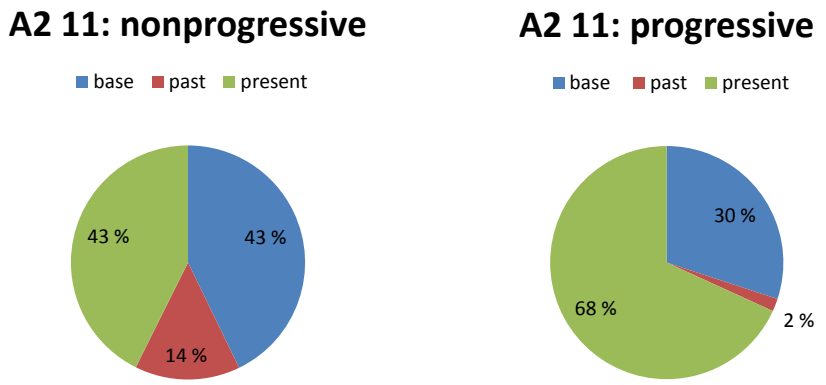

Figure 5.5.4: Nonprogressive and progressive tense distribution in group A2 11.

By contrast, the same-age learners at a higher level of proficiency, in group A2 11, clearly differentiate between the two aspectual forms (Figure 5.5.4 above). The proportion of past tense forms is about the same as A1 in the nonprogressive, but only two percent of progressives are used with the past tense form of the auxiliary in this group. These are, however, represented by three informants, rather than just one. The use of base forms is also lower than in A1, particularly with PROG; this indicates perhaps a greater awareness of the difference between tense and aspect, and may be interpreted as a step towards seeing the progressive as a *construction*, rather than just the bare *-ing* form. Almost 70% of PROG are used with the present tense of the auxiliary, while only 43% of the nonprogressives have present tense inflection. This might partially be explained by their general mastery of the highly frequent verb BE (lexical as well as auxiliary), which hardly appears uninflected in any of the texts (cf. section 4.8.2.2).

In A2 15 (Figure 5.5.5 below) the use of BASE is dramatically lower than in the younger learners at the same proficiency level, in both aspectual categories. In the progressive, the auxiliary is used in about 90% of obligatory contexts, which according to Dulay and Burt (1974a) indicates that a form is learned (see also Brown 1973); in other words, it might be safe to say that in these learners, the progressive has reached construction status, at least formally. Here, too, we see clear differences between PROG and NON. The present is the preferred tense form for both aspect categories, but with a difference of 24 percentage points, the progressive

is clearly more closely connected to present tense use. In addition, this group uses the past tense much more frequently than the younger groups, but maintains the distinction between the aspectual forms that was evident in the younger learners at the same level, with almost a quarter of the tokens in the nonprogressive and only 6% in the progressive. In this group almost all texts contain past tense forms; 14 out of 18 in the nonprogressive, but only five in the progressive.

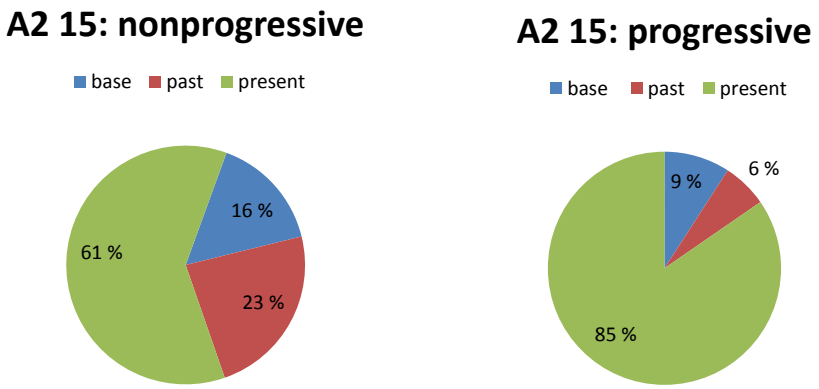

Figure 5.5.5: Nonprogressive and progressive tense distribution in group A2 15.

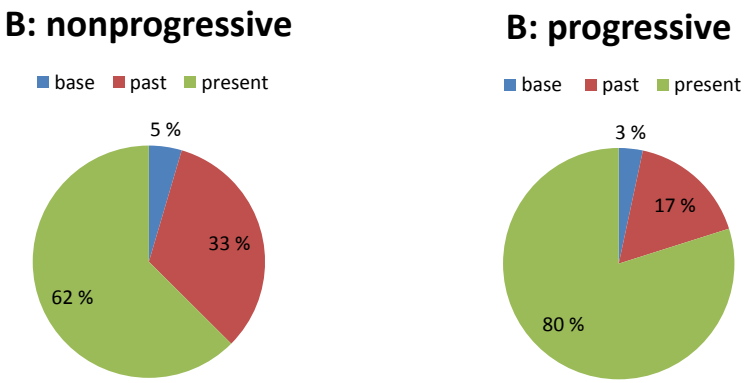

Figure 5.5.6: Nonprogressive and progressive tense distribution in group B.

Group B, which tends to have more native-like usage than the other L2 groups, displays the same pattern as the A2-level groups (Figure 5.5.6 above), although with some differences

in numbers. Base forms are rare in learners at the B level and equally infrequent in the progressive and the nonprogressive. Tense inflection is thus a feature that largely seems to be mastered at this level, not least seen in the consistent use of auxiliary BE; perhaps an indication that tense and aspect are now seen as distinct temporal markings. The preference for the present tense is the same as in A2 15, though with a somewhat lower score for the progressive (5 percentage points). Finally, this group also uses the past tense much less in the progressive than in the nonprogressive, but still considerably more than the less proficient groups for both aspectual categories. In this group as many as 19 out of 25 texts contain past tense forms, and in as many as 10 of these we also find past progressives. All in all, we see that in the nonprogressive, the use of past (and present) tense forms increases gradually with both proficiency and age; presumably as more inflectional forms are learned. The progressive, on the other hand, does not initially seem to be associated with any one tense category, though hardly any of the learners use it in the past; from level A2, however, the use of past progressives gradually increases with age and higher proficiency. The number of individual learners who use the past tense also goes up, not just the proportion of the group totals. This tendency shown here is quite informative and should be substantiated in a larger sample.

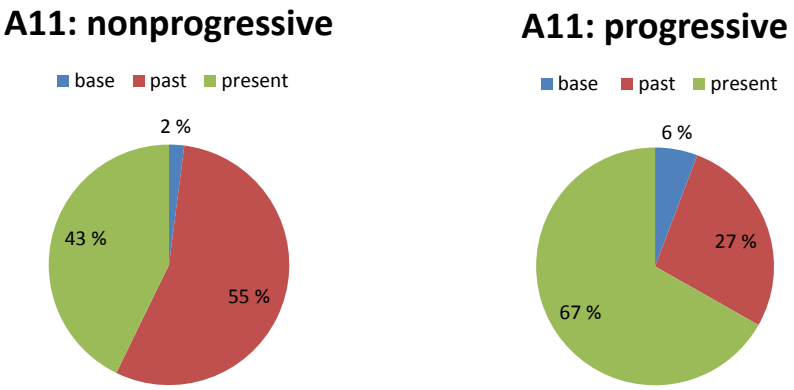

Figure 5.5.7: Nonprogressive and progressive tense distribution in group A11.

Figure 5.5.7 above shows the distribution in the youngest American group. Unlike the Norwegian learners, these native speakers have more tokens of BASE in the progressive than in the nonprogressive, but the proportion is very low in either aspectual category. Since the progressive is considerably less frequent than the nonprogressive, the actual number of base

progressives is also lower than base nonprogressives. With the low number of BASE tokens, the choice between present and past tense becomes all the more pertinent. A11 is the only group in the sample with an overall preference for the past tense; around half of all tokens have this form. The past tense is also used quite frequently with the progressive, but with a score of 27%, it is only half as frequent as in the nonprogressive, relatively speaking. Conversely, the progressive is used in the past tense in 67% of all cases, which is 24 percentage points higher than for the nonprogressive. This distribution is very similar to that of the oldest L2 groups.

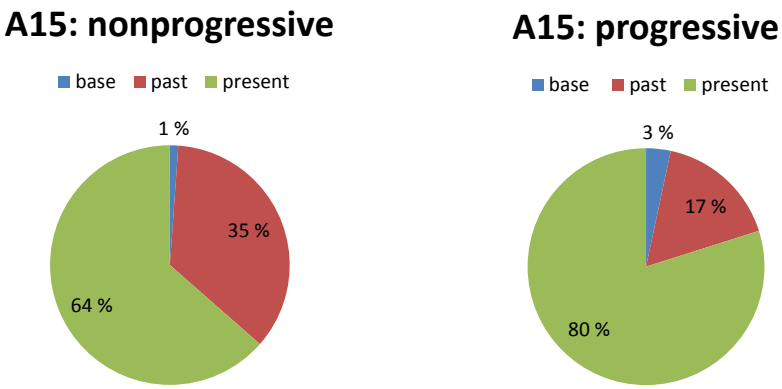

Figure 5.5.8: Nonprogressive and progressive tense distribution in group A15.

Finally, Figure 5.5.8 above presents the distribution in group A15. These results are almost identical to those for Norwegians at level B, which further attests to these learners' mastery of the usage of English tense/aspect inflection. When learners have reached this level of proficiency, there is little in the present dataset that supports the claim that Norwegians overuse the progressive. Quite the contrary; the most proficient learners seem to have a very native-like command of English verbal coding, in these last stages of their obligatory[105] formal English training. These results are also in line with Axelsson and Hahn's (2001) findings for Swedish and German students, who do not overuse the progressive compared to native-speaker college students.

[105] English in an obligatory subject through the 11th school year in Norway, i.e. age 16/17.

5.6 Lexical aspect

This section presents the use of lexical aspect in combination with the variants of PROGRESSIVE. The presentation starts with an overview of the use of lexical aspect, regardless of verbal coding, and then presents both within-category and across-category distribution of the relevant categories, as Bardovi-Harlig (2000) has found these two approaches to give somewhat different results. Finally, the results for this variable are summarized.

5.6.1 Overview of total use of lexical aspect categories

As was done with tense above, this section starts with an overview of the distribution of lexical aspect in raw numbers, in Table 5.6.1 below. In total, achievements (ACH) is the most frequent category with 2353 tokens, closely followed by accomplishments (ACC), which are used 2224 times in the dataset. Activities (ACT) are considerably less frequent, with only 1488 in all, whereas states (STA) seems to be the least frequent category,

Table 5.6.1: Lexical aspect distribution in raw numbers.

	ACT	ACC	ACH	STA	Total
N11	**384**	**454**	**345**	**76**	**1259**
A1	71	86	49	11	217
A2 11	301	353	278	58	990
N15	**461**	**599**	**674**	**231**	**1965**
A2 15	163	200	172	62	597
B	286	382	499	168	1335
A11	**322**	**530**	**578**	**319**	**1749**
A15	**321**	**641**	**756**	**145**	**1863**
Total	**1488**	**2224**	**2353**	**771**	**6836**

with 771 occurrences, but only because more than 1000 tokens of lexical BE are excluded from the analysis; in reality this makes ACT the least frequent category, and we see a clear difference between ACC and ACH on the one hand, and ACT and STA on the other. There are, however, noticeable differences between the groups in the use of these categories, which are more easily seen when the distribution is given in percentages, in the bar chart below (Figure 5.6.1). Learners at the A1 level mainly use verb phrases classified as ACT or ACC; the types that according to Vendler (1957) are characterized by their extension over a stretch of time. This group's use of states is minimal; only 5% of the tokens fall into this category. ACH VPs account for around 22% of all tokens.

One level up, at A2 11, the use of both ACT and ACC goes down compared to A1, and there is quite an increase in the use of ACH, while STA is only slightly more frequent. The same trends continue when age is factored in at this level: The proportion of ACT and ACC goes down, and while the use of ACH is stable across age groups, we see that the relative frequency of states is nearly twice as high in A2 15. At the B level, there is a marked shift; ACH

is the most frequent category in this group, whereas the use of both ACT and ACC continues to go down with higher levels of proficiency. The proportion of states also increases with a few percentage points in this group, compared to A2 15.

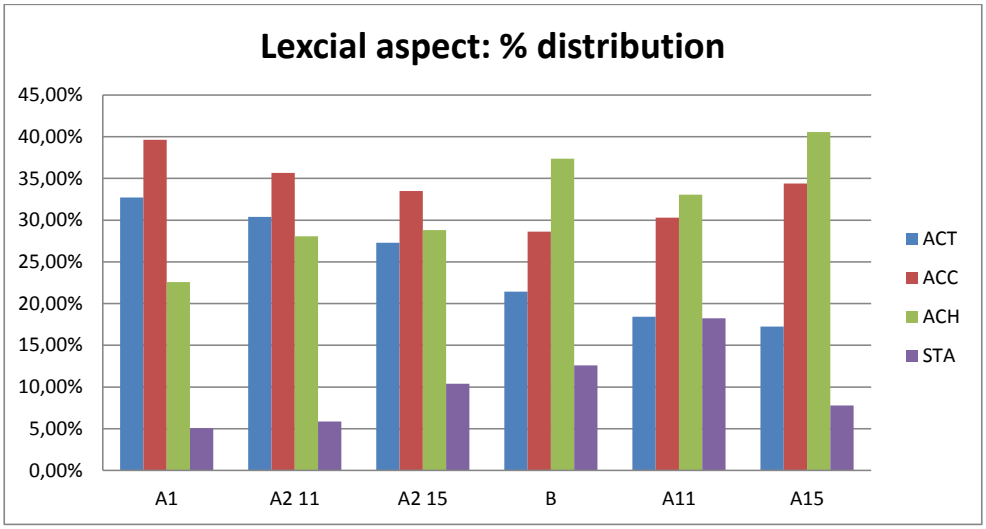

Figure 5.6.1: Lexical aspect distribution in percentages.

As for the native speakers, A11 stands out in this context in that the proportion of STA and ACT respectively is almost the same, at a little over 18%. The use of STA is also higher than in any of the other groups, including A15, where the proportion is lower than both A11 and the two Norwegian groups of 15-year-olds. On the other hand, A15 has a higher proportion of ACH than any of the other groups and the lowest share of ACT. Thus it seems that with higher proficiency, be it in L1 or L2, the narratives are characterized by higher proportions of ACH and to some extent STA, while the use of ACT goes down. ACC is a consistently frequent category in all groups, but more so in the least proficient groups; the native speakers, on the other hand, use this type of VP more frequently in the older group.

These patterns in themselves seem to provide some explanation for the variation in the use of the progressive, as was seen from the multivariate regression analysis offered in section 5.4. In the present section, however, the main question is how these lexical aspect categories are used with PROG on the token level, i.e. in the individual verb phrases, as will be seen next.

5.6.2 Within-category distribution

The Aspect Hypothesis, as outlined in H6, predicts the strongest association between progressives and ACT, followed by ACC and then ACH. Finally, this hypothesis predicts that

learners do not use the progressive with STA at all. Figure 5.6.2 below shows the percentage of PROG in each of the Vendler categories, for each of the informant groups.

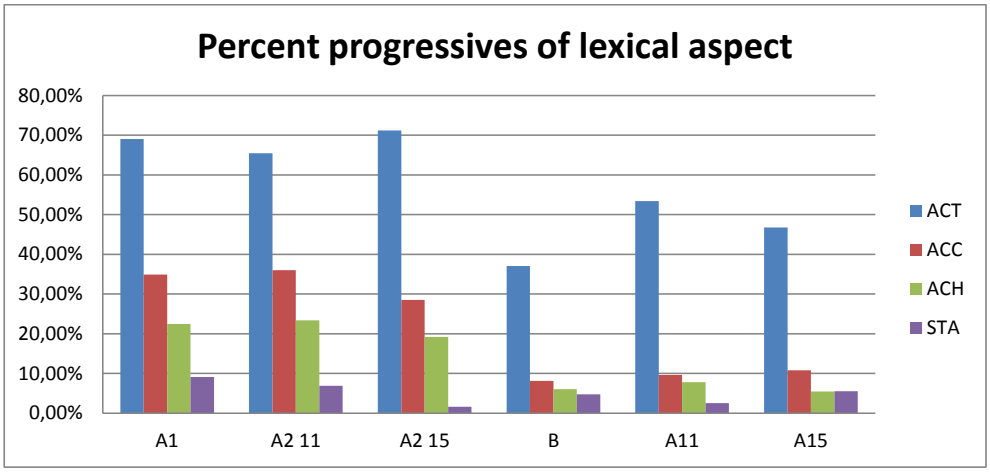

Figure 5.6.2: Percent progressives of each lexical aspect category.

The link between ACT and the progressive is strengthened, as the co-occurrence of ACT and the progressive on the text level (cf. section 5.4) is also reflected on the token level; all groups clearly prefer to use the progressive with activity VPs. At the lower proficiency levels, A1 and A2, the vast majority of ACT VPs — between 65% and 71% — are marked for the progressive (PROG). The frequency does not go down with age; rather, A2 15 has the highest proportion of activity progressives of all groups. At the B level, on the other hand, only 37% of all activities are in the progressive. This is a lower proportion than in any of the native-speaker groups; the latter have a frequency of 53% at age 11, while A15 use this pairing somewhat less, at 47%.

So far, we see that the part of the hypothesis that concerns activities is supported by the present data. The fact that the association between ACT and PROG is strongest in the least proficient groups speaks in favour of the Aspect Hypothesis, whereas the lower proportion at the B level might lend support to the Distributional Bias hypothesis (cf. section 3.4.2); presumably, this group has benefited much from access to English written texts and this is reflected in their general competence when it comes to text production in English, as well as in their mastery of the progressive.

As for the other three Vendler categories, things are not as clear cut. At age 11, Norwegian learners at both levels have a higher proportion of ACC progressives (around 35%)

than the B-level group has for ACT. The number goes down to 29% in A2 15, while B only uses the progressive with 8% of all accomplishments. The latter is only slightly lower than either of the native-speaker groups. The progressive is also used in around 20% of all ACH verb phrases in groups A1, A2 11 and A2 15, while the corresponding number is only 5% in group B. Even STA verb phrases, which should not occur in the progressive at all, are used in greater proportion in the least proficient groups than in the more proficient ones, though with a rise from A2 15 to B.

The AH predicts a gradual spread across lexical aspect categories with increased proficiency, but it does not propose that overall frequency go down in all categories. It seems odd that sensitivity to lexical aspect should lead to initial overuse across the board, rather than overuse in the category most strongly associated with the progressive, followed by increased use in the other categories. The pattern seen in the present dataset suggests that other factors are at play when it comes to Norwegian learners' understanding of the progressive, and it is not unlikely that the initial association is with tense as much as with lexical aspect. An investigation of Norwegian students' use of tense/lexical aspect pairings in their production of text in Norwegian might shed light on the matter[106], but this is beyond the scope of the present study.

5.6.3 Across-category distribution

After this within-category presentation of the proportion of progressives, we turn to the across-category distribution in each of the learner groups. As Bardovi-Harlig (2000) demonstrates, viewing the results from different perspectives, can be quite revealing; this is certainly the case when the number of tokens is low. In Figure 5.6.3 below, we see that although 9% of all states in group A1 are marked for the progressive, only 1% of all progressives are states. Behind these numbers there is in fact only one token to be found, of 12 states total: *a boy and his dog* ***looking*** *not his frog* (informant 1111). Unlike the other verbs in STA VPs in this group – *have, want* and *see – look* is usually found in ACT VPs. In this case, however, the verb is used to denote that the frog is not within eyesight, i.e. the meaning is most likely the stative 'see'[107]. The stative use of *look*, but with progressive marking, may indicate that the progressive is associated more closely with the verb itself than with its non-prototypical contextual use.

[106] Cf. Jarvis' third criterion, *crosslinguistic performance congruity*, outlined in section 2.2.7.5.

[107] Norwegian does not distinguish lexically between 'look' and 'see', but may instead use an adverbial particle to indicate an activity meaning: *se på*; literally 'see on'.

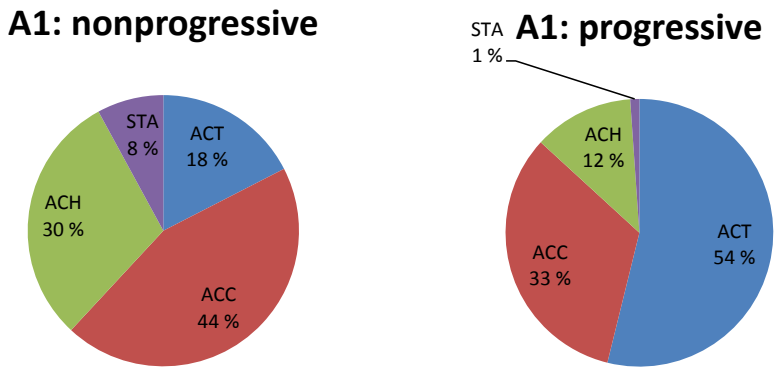

Figure 5.6.3: Nonprogressive and progressive lexical aspect distribution in group A1.

Further, we see that although activities make up only 18% of nonprogressives, their proportion of PROG tokens is three times as high, at 54%. ACC, on the other hand, is used less frequently in the progressive than in the nonprogressive, with a difference of 11 percentage points. The difference is even greater for ACH: 30% of all nonprogressives are achievements, but they are found with only 12% of all progressives. Progressive achievements in this group include *call, look up, wake, begin, stick, bite, find,* as in *a boy finding a dog in the water.* (informant 1111) or *hes dog vekking* [‘wake’]*he* (informant 1117). Both *find* and *wake (up)* are also used in the nonprogressive in this group.

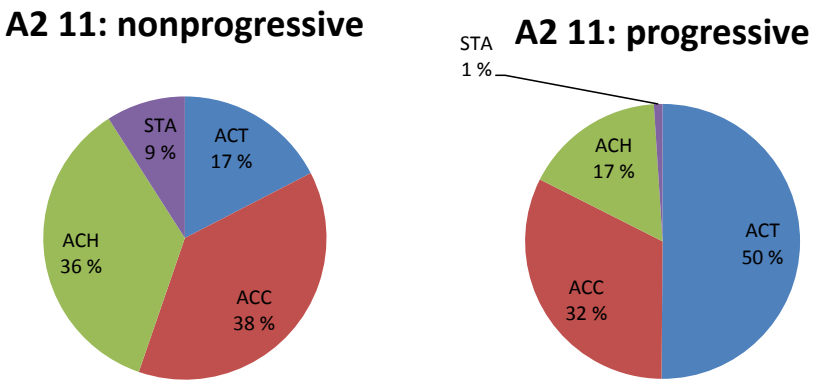

Figure 5.6.4: Nonprogressive and progressive lexical aspect distribution in group A2 11.

Figure 5.6.4 above shows the results for group A2 11, which are very similar to those of A1, although the raw numbers are higher. STA is represented by 9% of all nonprogressive verb phrases, but only 1% of the PROG ones. Behind the percentages, we find that 4 out of 58 states are in the progressive. Two of these, both produced by informant 1134, involve the verb *look*: *The dog are climbing on the boy head the boy* ***are loking starnge***. And *The boy and the dog* ***are loking suprais*** *wen the baby frog came out of the grass*. Again, this is a verb that is highly compatible with the progressive, but not typically in the stative sense denoting appearance. The other two tokens are typically stative verbs, *live* and *like*: *The dog put his head into the jar the frog* ***was living in***. (informant 1054) and *The* [missing word] ***is liking*** *the other frog.* (informant 1133). Of these, *live* is used appropriately, of a temporary dwelling, while the use of the emotion verb *like* in the progressive is more questionable in this context. In fact, the same informant uses the same verb in the nonprogressive in the very next sentence: *The other frog* ***like*** *the frog.* Both *look* and *live* are found repeatedly among the nonprogressive states as well. In other words, the use of progressive state verb phrases is nowhere near systematic.

In the nonprogressive, the share of accomplishments is a little lower than in A1 and the share of achievements higher, but together these two categories dominate the nonprogressive verb phrases in A2 11 as well. Activities account for 50% of the progressives in this group, followed by accomplishments, which are almost as frequent as with the nonprogressive. The number of achievement progressives is somewhat higher than in A1, at 17%, and includes 13 different verb tokens. Several of these are semelfactives, such as *jump, bark* and *kiss*, but change-of-state verbs such as *land, find* and *wake (up)*, and the perception verbs *see* and *hear* are also represented.

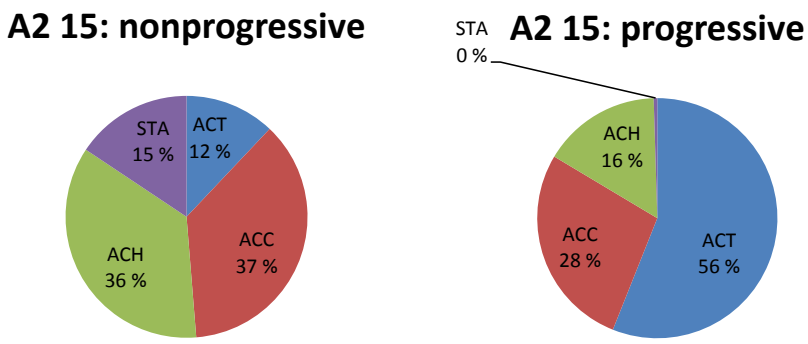

Figure 5.6.5: Nonprogressive and progressive lexical aspect distribution in group A2 15.

At the same proficiency level, in Figure 5.6.5, we find that the older learners in group A2 15 produce even fewer state progressives than the younger groups, at the same time as the overall frequency of states goes up. In the nonprogressive category, 15% – 61 tokens – are states, while only one state verb phrase is found in the progressive: *Its late and the moon* ***is shining*** (informant 1440). This use is quite native like and the classification as state rather than activity can be argued. What we see so far, then, is that inappropriate use of state progressives goes down, rather than up, with more years of instruction, at the same level of proficiency.

As far as the other categories are concerned, the distribution is more or less the same as in the previous two groups, although it should be noted that the gap between ACC and ACT progressives increases, so that the bond between ACT and the progressive is strengthened, yielding a polarity between this category and the other three.

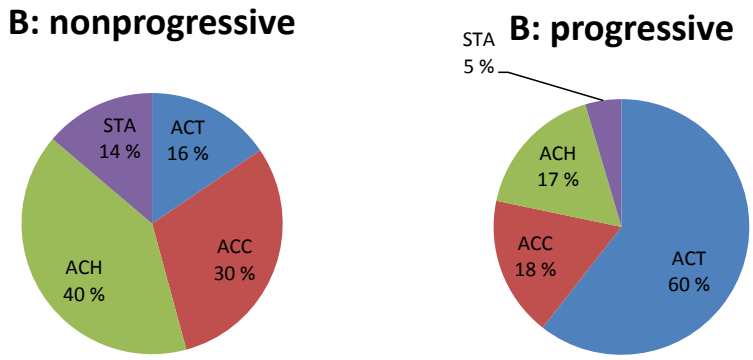

Figure 5.6.6: Nonprogressive and progressive lexical aspect distribution in group B.

This polarity is even more pronounced in group B (Figure 5.6.6 below), where ACT accounts for as much as 60% of the progressives, at the same time as the overall use of progressives goes down. Like A2 15, this group also has a higher frequency of states than the 11-year-olds; 168 tokens, 8 of which are in the progressive (informant numbers in parentheses):

The boy ***is looking*** *confused.* (1261)
It's night now, and the moon ***is shining*** . (1261)
It's night and bedtime, therfore ***he's wearing*** *his pajamas.* (1270)

*He **is wondering** what it can be.* (1262)

*Mark and Monty **is having** fun* (1263)

*the dog **is** still **having** the glass on his head.* (1270)

*The boy **is having** a frog in a box on the floor.* (1266)

*he look likes **his** not **understanding** the situation.* (1461)

We see that the first five of these are perfectly idiomatic uses of the progressive, while the last three are used inappropriately. Although this oldest and most proficient learner group uses state progressives more than the other three, the results here do not clearly support the Aspect Hypothesis: these learners do use the progressive with state progressives, both idiomatically and inappropriately. Moreover, there is no developmental pattern, from no use to some use. Rather, there is some use in all groups, albeit in very small numbers. Nonetheless, it cannot be claimed that L2 learners *do not* use state progressives.

As for ACC and ACH, these categories are almost equally frequent in the progressive, far behind ACT. At this stage, then, telicity seems to be a more important factor than duration in avoiding the use of the progressive, as the difference between ACC and ACH is often said to reside in whether or not the situation is punctual (see sections 3.1.3 and 3.4.2.1). The opposite holds true for nonprogressive verb phrases; here achievements, which are generally more frequent in this group, and accomplishments account for as much as 70% of the total use. STA and ACT are almost equally represented, with only around 15% each.

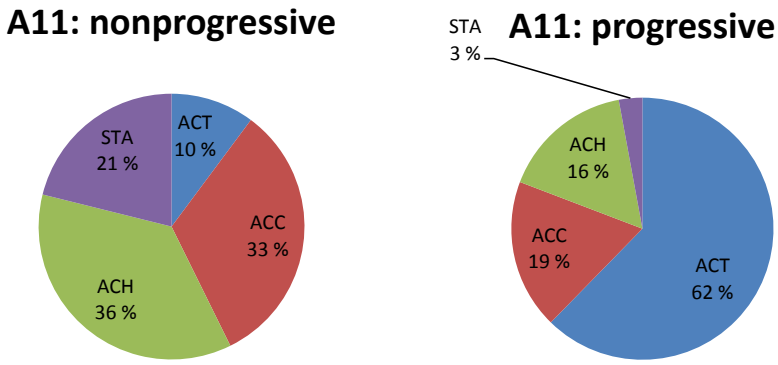

Figure 5.6.7: Nonprogressive and progressive lexical aspect distribution in group A11.

As we have come to expect by now, the results for Norwegian B level learners closely resemble those of the native speakers, although some differences can be detected. In A11 (Figure 5.6.7 above), STA is well represented in the nonprogressive (21%), mainly because of three informants who use the verb *see* very much. In the progressive, the 3% STA verb phrases are, not surprisingly, used idiomatically with the verbs *have* and *look*, as in *I see that the boy* ***is haveing*** *fun with the frog and the dog* (1351) and *the boy* ***is looking*** *happy* (1355).

It is in this group that we see the strongest tie between ACT and the progressive, at 62%, while only 10% of nonprogressives are activities. As in the other groups, both ACH and ACC are associated with the nonprogressive. Progressive ACH are mainly semelfactives such as *bark, sniff, yell*, but also transition VPs such as *get tired* and *make (the bees) mad*.

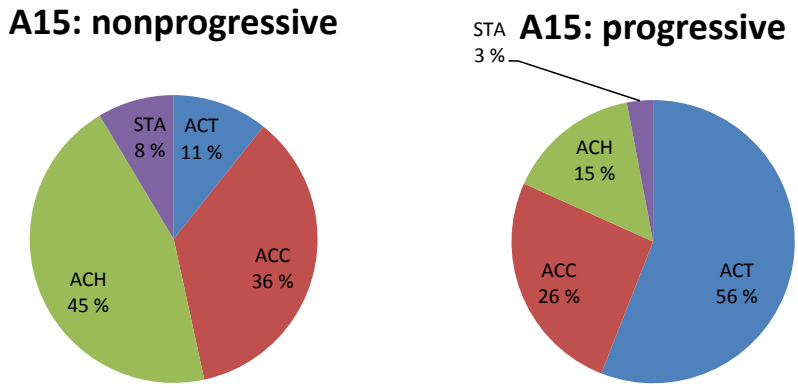

Figure 5.6.8: Nonprogressive and progressive lexical aspect distribution in group A15.

Finally, the American 15-year-olds confirm the pattern seen all along (Figure 5.6.8): ACC and ACH are overwhelmingly reserved for nonprogressives, whereas they only make up 26% and 15% respectively of the already infrequent progressive; however, there is a greater difference between these two categories than in B and A11. As in the younger native-speaker group, ACH progressives are mainly semelfactives, but this group also uses the progressives with verbs like *become, find, shatter, wake (up)* and *name.*

States and activities are not much used in the nonprogressive; together they make up only 19% of the total. Like in the other groups, ACT dominates in the progressive, with 56% of all tokens. The 3% states in this category are found in verb phrases that denote thoughts and

feelings (*feel, assume, wonder*), existence and possession (*live, have*), and function (*work*), and are all commonly used with the progressive.

5.6.4 Representativeness in learner texts

The last part of this section deals with how representative the above analysis is of the learners in the present study. To give an impression of how much each text contributes to the pooled use of lexical aspect, Table 5.6.2 below presents the number of texts that contain at least one instance of each of the lexical aspect categories.

Table 5.6.2: Number of texts that use each of the lexical aspect categories at least once.

	ACT	ACC	ACH	STA	Total n
Nor	**89**	**89**	**89**	**70**	**89**
11	**45**	**45**	**45**	**30**	**45**
A1	11	11	11	6	11
A2	33	33	33	23	33
15	**44**	**44**	**44**	**40**	**44**
A2	18	18	18	15	18
B	25	25	25	24	25
USA	**74**	**74**	**74**	**72**	**76**
11	**36**	**36**	**36**	**37**	**38**
15	**38**	**38**	**38**	**35**	**38**
Total	**163**	**163**	**163**	**142**	**165**

We find that most of the texts contain at least one token of the categories ACT, ACC and ACH. Only two texts, both written by 11-year-old native speakers, do not include these categories in finite contexts at all[108]. As for STA, the picture is different: four native speakers and as many as 19 L2 learners do not use states in finite contexts[109]. Most of these are, not surprisingly, found in group N11, of which five are at the A1 level and ten at the A2 level. In other words, respectively almost half and one third of informants in these groups do not display a lexical range that allows them to go beyond lexical BE in their expression of stativity. Thus the analysis of STA verb phrases is based on only a selection of the texts in the dataset and is particularly lacking in the least proficient groups. This raises an important question: Is it any wonder that learners do not use the progressive with state verb phrases if they are hardly capable of using other stative verbs than BE?

Next we turn to lexical aspect categories marked for the progressive, in Table 5.6.3, and look at each of the categories in turn. Once again, there is a clear relation between ACT and progressive marking: only eleven texts do not contain any progressive activities; of these, six

[108] In these two texts, 1359 and 1382, all sentences have the structure *I see* + direct object.

[109] The reader is once again reminded that lexical BE is not included in the analysis, so that in all likehood, these texts do contain stative verb phrases.

lack progressives altogether (two each from N11, A11 and A15). In the remaining five we find ACC progressives (three texts), ACH progressives (two texts) and one STA progressive.

Table 5.6.3: Number of texts that use each of the lexical aspect categories *in the progressive* at least once.

	ACT	ACC	ACH	STA	Total n
nor	**84**	**64**	**50**	**11**	**89**
11	**40**	**35**	**27**	**4**	**45**
A1	11	8	5	1	11
A2	28	27	22	3	33
15	**44**	**29**	**23**	**7**	**44**
A2	18	15	10	1	18
B	25	13	13	6	25
usa	**70**	**44**	**34**	**13**	**76**
11	**35**	**23**	**18**	**7**	**38**
15	**35**	**21**	**16**	**6**	**38**
Total	**154**	**108**	**84**	**24**	**165**

The latter is particularly interesting, as this is the only progressive as well as the only state in this text (N11: informant 1054), and one of two past tense tokens to boot: *was living in*. The other four have only one or two progressives as well. Two are native-speaker texts and are both dominated by ACH and ACC; the progressive in the A15 text is a semelfactive, *bark*, which then gets an iterative interpretation, while the A11 text has one progressive used for future time reference, *Were are you taking me?*, and one transition verb, *Its getting late John!*. The three tokens in the Norwegian texts (neither of which have any dominant categories) all denote movement in place and time, and might have been activities but for the clear end points (cf. section 5.9.4): *the boy* ***going out*** *and save the puppy* (1059: Girl, N11)*; The ole coms after the boy and he* ***running opp to the wook*** *and hold he in the stic and say "help help!", And he looft my upp in the air and* ***running to the stuups*** (1050: Girl, N11). As these verbs are often used in the progressive, we might take this as yet an indication that the association with the progressive might to some extent be lexical rather than a semantic abstraction.

Nonetheless, it is quite clear that most of the texts in this dataset confirm the tie between ACT and the progressive, as practically all of them contain this combination if the progressive is used at all. It is worth noting that all texts in group N15 contain at least one progressive activity, and only in A2 11 do we find L2 texts that lack this feature.

When it comes to ACC, on the other hand, proficiency level is at play again. Although both ACT and ACC are found in all the L2 texts, 20 fewer have ACC than ACT in the progressive. The difference is greatest in group B, as illustrated in Figure 5.6.9 below. Less than half of the texts in this group have any tokens of ACC in the progressive; again a feature that these texts share with the native-speaker groups. In contrast, levels A1 and A2 have no problems with ACC progressives in around 70-80% of the cases.

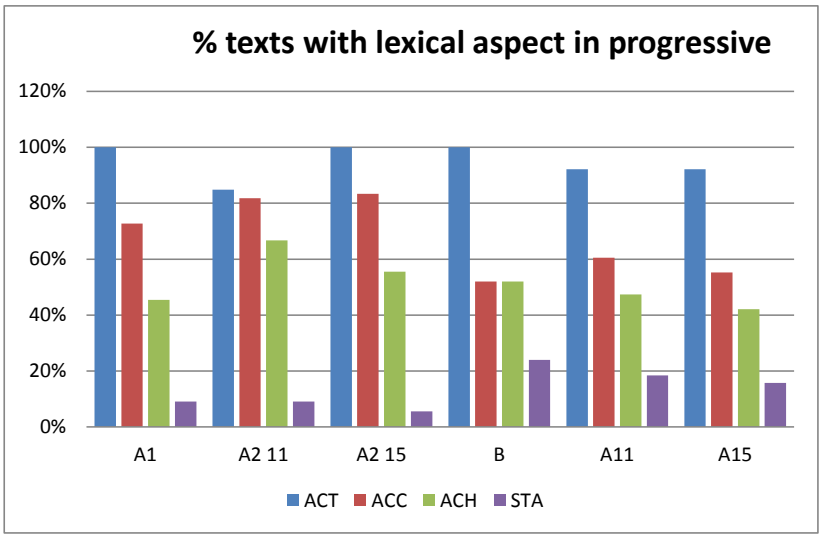

Figure 5.6.9: Percentage of texts that use each of the lexical aspect categories in the progressive at least once.

The next category, ACH, is surprisingly well represented, considering the results from both the within-category and across-category analyses, which revealed both a low share of this category in the progressive and a low representation in the total number of progressives in most groups. It seems that a relatively large number of texts contain a small number of progressive achievements each, rather than only a few texts contributing a disproportionate share. This seems to be the case in all groups, but apparently A2 11 are somewhat more willing to use this combination than the others. As with ACT and ACC, ACH tokens are found in practically all of the texts and the great spread of progressive ACH indicates that the pooled results are quite representative.

The same might perhaps not be said for STA progressives, which are only used in a small number of texts in any of the groups. In N15 as well as the native-speaker groups, almost all of the texts contain STA verb phrases, and the few progressives that are found in this category are contributions from several speakers. In N11, on the other hand, states other than lexical BE are used so infrequently in the first place that a high number of texts with STA progressives would be unlikely in any case. Naturally, if the expectation is that *no* states will be found in the progressive, then even a small number found in a few texts is enough to contradict the hypothesis. Even so, it might be that the whole category STA is alien to the least proficient groups (again with the exception of lexical BE) and not just state progressives; if this is the case, it would make the whole issue of states and the progressive in L2 learning a moot point.

5.6.5 Lexical aspect: summary

All in all, the same patterns are confirmed over and over again: The progressive is strongly associated with activities in both L2 learners and native speakers, although less proficient L2 learners also overextend this construction to ACH and, in particular, ACC. However, the across-category distribution shows that all groups use the progressive with the lexical aspect categories in a manner that is in harmony with the Aspect Hypothesis, i.e. mostly with ACT, then with ACC, followed by ACH, and hardly at all with STA. This descending order of frequency is also most prominent at the A1 and A2 levels, where ACC is used more with the progressive than ACH; this is not the case in groups B and A11, who shy away from the progressive almost equally in these two categories. Group A15, on the other hand, allows for ACC progressives to a greater extent than both A11 and B; an indication, perhaps, that this group makes a greater distinction between ACC and ACH than the other two.

We have also seen that group B behaves more like native speakers than like the less proficient groups in the within-category analysis, but this pattern is not as clear in the across-category analysis, where the differences between all the groups are somewhat less systematic. Finally, a case can be made for some degree of intragroup homogeneity in the use of ACT, ACC and ACH, both in general and with the progressive, based on how many of the texts contain these categories and combinations at all. In contrast, STA is a category that is less used both in general and with the progressive, particularly at the A1 and A2 levels. Claims about the use of the progressive with states do not appear quite as relevant, when the general command of STA beyond the prototype BE seems to be a feature of higher proficiency.

5.7 Tense and lexical aspect combined

This section deals with tense and lexical aspect combined, in the progressive and the nonprogressive. When the verb phrases are categorized based on combinations of all three of these features, in each of the informant groups, the numbers in each category are so small that valid significance testing is difficult: Pearsons chi square, which is the test chosen in this section, requires a minimum of five tokens in each table cell and, as can be seen from Table 5.7.1 and Table 5.7.2 below, three cells in the nonprogressive tense/lexical aspect groupings and as many as 18 in the progressive ones, do not meet this criterion. Nonetheless, grouping the verb phrases in such fine-grained categories may show important tendencies that can be explored further in larger learner corpora. Note that, due to the already large number of categories, the present analysis does not take proficiency level into consideration.

Table 5.7.1: Overview of tense/lexical aspect combinations in the nonprogressive[110].

NON	Tense	ACT		ACC		ACH		STA	
		n	(%)	n	(%)	n	(%)	n	(%)
N11	**base**	78	(57)	152	(51)	90	(33)	20	(28)
	past	13	(9)	39	(13)	52	(19)	13	(18)
	present	46	(34)	106	(36)	127	(47)	38	(54)
N15	**base**	19	(8)	45	(9)	46	(8)	13	(6)
	past	63	(27)	152	(30)	227	(37)	40	(18)
	present	154	(65)	312	(61)	338	(55)	169	(76)
A11	**base**	8	(5)	10	(2)	11	(2)	1	(0)
	past	74	(49)	317	(66)	343	(64)	78	(25)
	present	68	(45)	152	(32)	179	(34)	232	(75)
A15	**base**	0	(0)	8	(1)	8	(1)	1	(1)
	past	58	(34)	201	(35)	265	(37)	40	(29)
	present	113	(66)	363	(63)	442	(62)	96	(70)

From Table 5.7.1, we learn that group N11 has the highest proportion of inflected (or appropriately uninflected) forms in the categories ACH and STA; both around 20% in the past tense and around 50% in the present tense. In ACT and ACC, on the other hand, more than half of all tokens are uninflected, and then mainly inflected in the present tense, at around 35%.

In N15, all categories are mainly inflected for tense, but now we see a pattern that is in harmony with the Aspect Hypothesis. The proportion of past tense states is the same as in N11, but is increased in the other categories, following the pattern predicted by the Aspect Hypothesis; highest (37%) in ACH, followed by ACC (30%) and ACT (27%). In the present tense, this order is of course reversed. The past tense is in other words most strongly associated with punctual, telic ACH at this stage, although all categories are found in the present tense in the majority of the cases.

As we have already seen, A11 is the only group where the past tense dominates overall. There are still some quite striking differences between the categories: STA is clearly a present-tense category, with 75% of the tokens in this tense, in stark contrast to ACH and ACC, which are found in the past tense in two thirds of the cases. Unlike N11, where ACT and ACC follow the same tense pattern, A11 seem to view ACC and ACH as similar; this may indicate a reliance on duration in N11 as opposed to telicity in A11. N15, on the other hand, is somewhere between the L1 and L2 11-year-olds.

[110] As the percentages are rounded off to the nearest whole number, the numbers in this table do not always add up to 100 %.

Finally, A15 has a more homogeneous tense distribution across categories, but although differences of only 2-5 percentage points from one category to the next are too small to be likely to be significant, it is worth noting that they follow the same pattern as both N15 and A11: ACH is most frequent in the past tense, followed by ACC, then ACT and lastly STA.

Table 5.7.2: Overview of tense/lexical aspect combinations in the progressive.

PROG	Tense	ACT		ACC		ACH		STA	
		n	(%)	n	(%)	n	(%)	n	(%)
N11	**base**	95	(38)	60	(38)	20	(26)	1	(20)
	past	8	(3)	8	(5)	2	(3)	1	(20)
	present	144	(58)	89	(57)	54	(71)	3	(60)
N15	**base**	13	(6)	9	(10)	4	(6)	0	(0)
	past	33	(15)	6	(7)	3	(5)	0	(0)
	present	179	(80)	75	(83)	56	(89)	9	(100)
A11	**base**	5	(3)	3	(6)	7	(16)	1	(13)
	past	51	(30)	9	(18)	10	(22)	5	(63)
	present	116	(67)	39	(76)	28	(62)	2	(25)
A15	**base**	1	(1)	0	(0)	0	(0)	0	(0)
	past	24	(16)	4	(6)	2	(5)	3	(38)
	present	125	(83)	65	(94)	39	(95)	5	(63)

As already noted above, the number of progressives in many of the categories in this section is very small. In the distribution of STA in particular, all cells contain so few tokens that any attempt at an analysis seems pointless. As for the other lexical aspect categories, the low numbers in some cells are due to a skewed distribution between the tense categories and are therefore relevant to the analysis.

Table 5.7.2 above shows that in group N11 hardly any progressives are found in the past tense, which has already been demonstrated in section 5.5. The differences between the lexical aspect categories are small, but there is a tendency for past progressives to be either ACT or ACC, rather than ACH. The most noticeable trait in this group, however, is that a larger proportion of ACH is used with the present tense of auxiliary BE than in the other two categories; perhaps an indication that *-ing* in itself is more often seen as a sufficient inflectional morpheme in these latter semantic contexts. The proportion of base forms is nonetheless high in all of the semantic categories.

In N15 the use of base progressives is not prevalent, but it is worth pointing out that with 15% of all tokens, the past tense is almost three times as frequent as the base form in ACT, the only category in which the number of tokens is high enough to be of any relevance in these

two tense variants, whereas base and past tense forms are about equally infrequent in ACC and ACH. This may be an indication that some of the learners in this group have learned to use progressive activities in the past tense as a backgrounding device, although such a speculation needs to be backed up with a more thorough text analysis. Whatever the case may be, it is clear that ACT is the category that lends itself most easily to past tense use of the progressive in this group.

As A11 is the group with the highest proportion of past tense tokens in total, it is not surprising that the most frequent use of past progressives is also found in this group. Equally unsurprising is the fact that the highest proportion is in the category ACT, at 30%. For the other categories, the percentages seem fairly high (18 and 22 respectively), but the raw numbers are so low that it is not worthwhile to read much into them. The few base forms that are used do not provide much information about the semantic distribution either.

Similarly, A15, who use the present tense much more than A11, also have a higher proportion of past progressive ACT than either ACC or ACH; the latter two group together with only a few tokens each. Like N15 and A11, this group clearly finds that the semantic properties of ACT are compatible with past tense use of the progressive, while ACC and ACH are almost exclusively reserved for the present tense.

The question remains, however, whether this distribution is statistically significant. As noted above, it is difficult to perform valid statistical tests when the numbers are very low in some categories, but the test chosen in this section, Pearson Chi Square, may nonetheless provide some valuable information. Table 5.7.3 below presents the results from this test, where the problem of low expected count and/or empty cells does indeed present itself. This means that although some of the results for the progressive are significant or approaching significance, it is by no means certain that we would get similar results from a larger sample of the population. However, the same restrictions do not apply to the results for the *non*progressive, where the raw numbers are higher. Here we see that the tense/lexical aspect distribution is highly significant, at the .000 level, in all but one group; A15. Unable to draw certain conclusions as regards the progressive, it is at least safe to say that the choice of tense with the different semantic categories in the nonprogressive is far from random; a finding that supports the Aspect Hypothesis. From this one may cautiously suggest that it is not unlikely that the tense distribution of the progressive is based on semantic intuitions as well.

Table 5.7.3: Pearson Chi-Square Tests for tense/lexical aspect combinations.

Pearson Chi-Square Tests

				Lexical aspect
Nonprogressive	N11	Tense	Chi-square	35,982
			df	6
			Sig.	,000*
	N15	Tense	Chi-square	35,245
			df	6
			Sig.	,000*
	A11	Tense	Chi-square	181,090
			df	6
			Sig.	,000*
	A15	Tense	Chi-square	6,174
			df	6
			Sig.	,404
Progressive	N11	Tense	Chi-square	9,356
			df	6
			Sig.	,155b,c
	N15	Tense	Chi-square	10,846
			df	6
			Sig.	,093b,c
	A11	Tense	Chi-square	19,609
			df	6
			Sig.	,003*,b,c
	A15	Tense	Chi-square	12,282
			df	6
			Sig.	,056b,c

Results are based on nonempty rows and columns in each innermost subtable.

*. The Chi-square statistic is significant at the ,05 level.

b. More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

c. The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

5.8 ING

Although direct frequency correlations were not found statistically significant (cf. section 5.4), there are such clear differences between the various informant groups in the use of ING, i.e. the *-ing* form in other constructions than the progressive, that the nature of these differences is explored further in this section. In addition, the use of lexical aspect with ING, as well as its distribution in different constructions, is presented here.

5.8.1 Overall group results

Table 5.8.1 presents the quantitative use of ING by various measures. This is done because no measure could be found to adequately illustrate the differences on its own, as other factors might skew or obscure the numbers: As with PROG, differences in length of texts, as well as use of adjectives, adverbials, etc., might make both raw numbers and count per 1000 words unreliable forms of calculation (see section 5.2). Some sort of ratio count is therefore judged to be a better approach, but since there are no obligatory contexts for these constructions in any given finite clause, the ratio cannot be calculated against number of clauses either. The measures presented below will therefore each in its own way paint some part of the fuller picture of how ING is distributed in the groups, compared to the distribution of both PROG and the other non-finite variable in this study, the infinitive (INF).

Table 5.8.1: Distribution of ING compared to progressive forms and INF.

Group	n ING	n PROG	ING/1000 words	% ING/verbs total	n verbs	ING/INF	n INF
N11	14	499	5,5	4,1	343	0,5	28
N15	211	392	14,0	9,7	2186	0,9	231
A11	233	277	17,5	11,3	2068	1,2	195
A15	219	268	14,1	9,4	2341	0,8	270

The second column of Table 5.8.1 shows the raw numbers of ING in each of the groups (n ING), followed by the raw numbers of progressives (n PROG) in column three. Next, we see each group's average number of ING per 1000 words in those who actually use it. The reason for excluding the learners who do not use ING is that in group N11 those who do use it are so few that including non-users would mainly reflect the latter's behaviour (see Table 5.8.2 below), which is less relevant when it comes to investigating the proportion of ING in the texts. Therefore, these numbers show the proportion of ING only in texts that include this feature. It then becomes clear that even when we only look at the texts where ING is found at all, the proportion is much smaller in N11 than in the other groups, at 5.5 per 1000 words. The oldest

learners, both L1 and L2, display approximately the same frequency, at about 14 – more than twice as many as in N11 – while the greatest frequency is found in A11. Since the groups may vary in the complexity of the phrases they produce (cf. section 5.2), I have also looked at percentage of ING out of verbs total[111] in the same texts, in the fifth column, with the total number of verbs[112] in these selected learners given in the adjacent column. This measure, however, does not yield radically different results: the proportion of ING is still lowest in N11; noticeably higher in all the other groups; and again the two most similar groups are the oldest ones, while A11 has the highest percentage. Thus, the two ways of tallying the use of this form support each other.

Finally, the seventh column gives the ratio of ING to the other non-finite form included in the study, the infinitive, followed by the total count of INF in each group (not necessarily produced by the same learners; there is only some degree of overlap in N11). Norwegian learners know and use the infinitive in their L1 and it is the form they first encounter when first learning new English verbs in school. In addition, the form is identical to the present tense other than in the third person singular, so they would not be expected to find it difficult to use. Yet we see that the overall use of infinitives is also very low in N11, albeit twice as high as ING. These numbers indicate a general low command of non-finite verb constructions in the youngest L2 learners; their texts mainly consist of finite (mostly main) clauses. In all the other groups, the frequency of the infinitive is much greater, as with ING, but it is noteworthy that only A11 has a higher number of ING than of infinitives (195 vs. 233); both N15 and A15 have the opposite pattern, with somewhat more frequent use of infinitives than ING.

Table 5.8.2: Use of ING by proficiency level

	Level	Total	n	Mean	Range
N11	A1		0/12	-	-
	A2	10	8/33	1,25	1-3
	B1	3	1/1	-	3
N15	A1		0/1	-	-
	A2	27	12/18	2,25	1-5
	B1	170	24/24	7,1	1-26
	B2	10	1/1	-	10
A11	-	233	34/38	6,9	1-28
A15	-	207	37/38	5,6	1-19

[111] Such a measure is unfortunately quite unreliable, as the total number of verbs increases with the number of *–ing* and the relative proportion of finite and non-finite verbs may vary from text to text. Nonetheless, it has the potential to reveal any differences between word count and verb count.

[112] In this context, 'verb' includes all forms derived from a verbal stem, even nominalizations and adjectives.

From this overview, we turn to a more detailed look at the distribution of ING in the texts. Table 5.8.2 above reveals the use of ING in the different proficiency groups, not in percentages but in raw numbers. In addition, the average frequency and the range (in those who use ING) is given for each group. We see that at the A1 level, not a single text contains ING, but at the B1 and B2 levels, they all do. The number of occurrences is also higher than in the A2 group. At the latter level, there is an age difference as well: two thirds of the 15-year-olds use this feature, compared to only one fourth of the 11-year-olds. Both the average and the range increase with age and proficiency; at the A2 level, no text contains more than five tokens, whereas B1 texts cover a span from 1 to 26 tokens, with an average of 7.1 at age 15.

By now, it should come as a no surprise that the B-level texts group with the L1 ones. Nearly all native-speaker texts also contain at least one token of ING, with age-group averages slightly below that of the B1 texts. A11 has a higher range and average than A15, but mainly because of a couple of atypical texts (see section 5.6.4 above).

What we find here, then, is not only a development across with both age and proficiency levels, but also that the texts at the B levels compare best to the native-speaker groups, rather than to the remainder of the L2 texts. As with the progressive, these high-proficient learners have a native-like use of ING as far as quantity is concerned.

5.8.2 Lexical aspect

ING is also analyzed with respect to the Aspect Hypothesis (AH). This approach is novel, as the Aspect Hypothesis is not worded in such a way as to indicate that it applies to *-ing* in non-finite contexts, and to my knowledge, no other studies have dealt with it in this way. However, as pointed out earlier (see sections 1.8 and 3.4.2.1), it is not always clear whether previous studies strictly distinguish between the progressive and other uses of ING, as in Robison's study (1995: 345). This part of the present investigation is an attempt to remedy such a lack of methodological rigour and explore briefly whether learners' semantic intuitions are directly linked to the combination of the lexical verb and the *-ing* suffix, or if they encompass the entire progressive construction. If learners initially do not distinguish between the various constructions *-ing* may occur in, as discussed in section 3.4, but rather see it as an independent verb form, then it follows that the spread to new constructions should also follow the path predicted by the Aspect Hypothesis. In other words, if the association between *-ing* and ACT is already strong in finite contexts, then there is no reason to believe that there should be radically different semantic ties when the *-ing* form is applied to other contexts. Similarly, the use of ING with ACC and ACH should be less frequent, and learners should not use this form

with STA at all, according to the hypothesis – if it is applicable here as well. H9 thus posits that the Aspect Hypothesis may be extended to non-finite constructions and yield the same predictions across lexical aspect categories as for the progressive constructions, as hypothesized in H6. In presenting the results, I have chosen to hold the use of ING up against the use of the infinitive, or base, form in the same way that the progressive is compared to all other verb forms in finite contexts, including finite use of base forms, in order to get an impression of the within-category distribution of lexical aspect. The third non-finite form, the *-ed* participle, is not considered here, but would be useful to include in a study that mainly targets non-finite forms, rather than the progressive.

Table 5.8.3: Lexical aspect: results for non-finite contexts.

	ING	INF	total		ING	INF	total
Nor	**220**	**261**	**481**	**usa**	**440**	**465**	**905**
N11	**13**	**30**	**43**	**A11**	**233**	**195**	**428**
ACT	9	7	16	ACT	139	49	188
ACC	2	2	4	ACC	44	41	85
ACH	1	16	17	ACH	34	83	117
STA	1	5	6	STA	16	22	38
N15	**207**	**231**	**438**	**A15**	**207**	**269**	**477**
ACT	131	80	211	ACT	117	89	206
ACC	23	34	57	ACC	30	55	85
ACH	31	93	124	ACH	32	90	122
STA	19	24	43	STA	28	35	63

Table 5.8.3 above gives an overview of the within-category distribution of lexical aspect in all groups, in raw numbers, while Figure 5.8.1 below shows the proportion of ING of each lexical aspect category for each group. We see a clear preference for ING with activities in three of the groups, but not in the Norwegian 11-year-olds, where the numbers are low overall. The latter group does, however, use ING more with activities and accomplishments than with states and achievements. With only 43 non-finite tokens in total, the results for this group can at best be used to give an indication of young learners' first attempts at using non-finite verb forms, but it is noteworthy that ACH, as the largest category, is represented with 16 tokens in INF and only one in ING: *The boy and the dog have to be quiet thei heard some* ***quacking***[113] *from a stock nearly* (1054: boy, N11). There is also just one token of STA with ING – *next day they*

[113] *quack* is classified as a semelfactive, which gets an iterative interpretation here.

waked up, they looked ***wondering*** *down to the jar.* (1055: boy, N11) – but in this category the total number of tokens is only six. There are only four tokens of ACC, too few to warrant any interpretation, but when it comes to ACT, 9 tokens out of 16 in ING – e.g. *The boy is really sad, so he begin* ***looking*** *everywhere for the frog.* (1077: girl, N11, level B) – is an indication that there might be some ties between the two categories at this early stage.

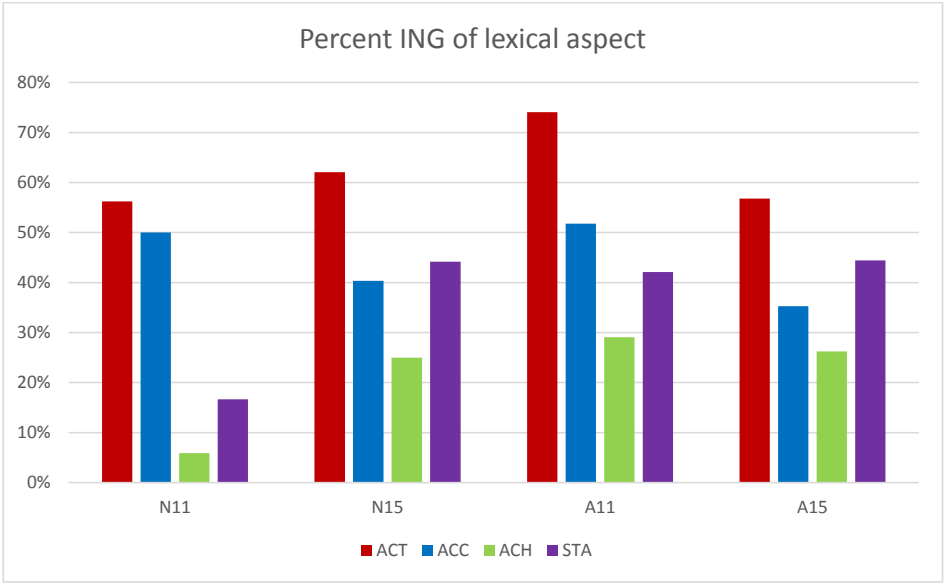

Figure 5.8.1: Percent ING of each lexical aspect category.

The older Norwegian group has produced a much higher number of non-finite tokens; around the same as each of the two American groups, which gives good grounds for comparison. All three of these groups have a higher percentage of ING than INF with ACT, particularly A11 at 74%, as in *Buddy tried to follow along by* ***running*** *right beside them*. (1398: girl, A11). N15 also leans heavily towards ING in this category with 62% of all tokens, e.g. *But on the way up, a big owl hit's him while* ***flying***. (1261: girl, N15), while the use of INF is somewhat higher in A15, although this group also shows a clear preference for ING, as in *The bees start* ***chasing*** *Jack.* (1254: boy, A15). In all other semantic categories, these three groups prefer INF over ING, except A11's slight preference for ING with ACC at almost 52%; the results thus support the Aspect Hypothesis in that ING, like PROG, is most frequently used with ACT. Group N15 has quite a high frequency of this form with ACC as well, at around 40%, followed by A15's somewhat lower frequency at 35%, as in *He is standing next to his*

bed ***putting on*** *some close.* (1355: boy, A15). However, all of these groups display a clear difference from ACH, which both of the older groups use with ING in only around 25% of the tokens, while A11 lands at 29%, e.g. *He found a hole and looked down it, but instead of* ***finding*** *the frog he got a hurt nose.* (1362: girl, A11) Here we see that the same verb, *find*, is used in the nonprogressive in a finite context, but with ING in a non-finite adverbial clause. The groups thus make a distinction between ACC and ACH along the lines of AH. The biggest surprise is that these three groups all use ING with STA in more than 40% of the tokens, e.g. *The dog was sneeking behind him without him* ***knowing***. (1380: boy, A11), *he starts* ***hearing*** *ben.* (1314: boy, A15), and *The boy is screaming out the window,* ***hoping*** *the frog will come back.* (1261: girl, N15). At this point the results clearly deviate from the predictions of AH, which indicated no use at all. In terms of semantic properties, it seems that stretches of time (ACT and ACC) are more compatible with ING in both N11 and A11, while atelicity (ACT and STA) gains in importance in the older groups. Another striking observation, though, is that ING seems entirely unproblematic with all lexical aspect categories (except in N11), unlike the progressive, which is favoured with neither achievements nor states. The presence of auxiliary BE[114] in the progressive construction does seem to make a difference for the compatibility with verb semantics, then, whether this is due to its role as a tense marker or because of its inherent stativity, or for some entirely different reason.

Table 5.8.4: Across-category distribution of lexical aspect in percentages.

	ACT	ACC	ACH	STA
N11	37 %	9 %	40 %	14 %
N15	49 %	13 %	29 %	10 %
A11	44 %	20 %	27 %	9 %
A15	43 %	18 %	26 %	13 %

Turning now to across-category distribution, we start with an overview of the distribution of the lexical aspect in the learner groups, regardless of verb form, in Table 5.8.4. The dominant category is ACT, which makes up from 37% to 49% of all tokens in the respective groups, followed by ACH at just under 30% in N15, A11 and A15. In N11 this is the largest category, but we have already seen that the numbers are too low to be reliable in this group. The categories ACC and STA are relatively small in all groups, though with some differences in favour of ACC. This distribution is quite different from the one in finite contexts,

[114] Here 'presence' means its contribution to the meaning of the progressive, not whether or not the auxiliary is found in learner texts.

presented in section 5.6.1, where the differences between the groups were clearer and both ACH and ACC more dominant.

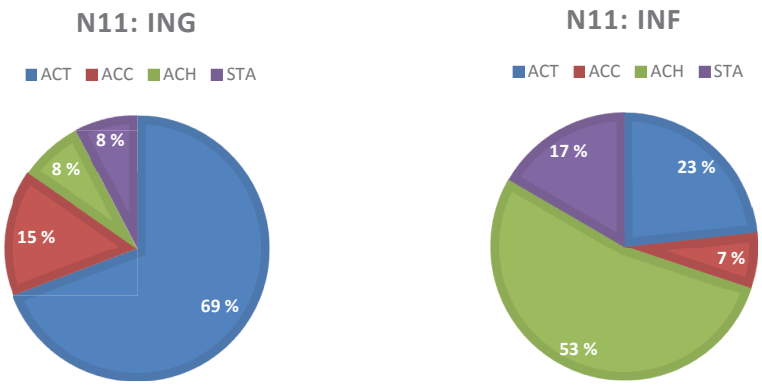

Figure 5.8.2: Lexical aspect distribution of ING and INF in group N11.

Next, Figure 5.8.2 above shows the difference in distribution between ING and INF in group N11. While always bearing in mind that the numbers are very low, we do find a noticeably different pattern: In ING, ACT is clearly the dominant category, with 69% of the tokens, followed by the two tokens (15%) of ACC and one token each of ACH and STA (8% each). These are few tokens, but remember that they represent half of all ACC tokens, but only one of 17 ACH tokens and one of six STA tokens. It thus seems quite clear that initial use of ING (at level A2) is mainly with ACT, in line with the Aspect Hypothesis. In INF, on the other hand, all categories are represented, but the one that stands out is punctual, telic ACH, with 53% of the tokens.

In Figure 5.8.3 below, we find that the pattern outlined above is largely reflected in the results for group N15: ING is mainly used with ACT, at 64% – an even larger proportion than for the progressive in this group (cf. section 5.6.3), and much more than the category's 49% share of the total number of non-finite verb phrases. The raw numbers are also ten times higher than in N11 and thus more reliable. As for the other categories, their proportions somewhat reflect their share of the total number in that ACC and STA are least represented and ACH slightly more, though less than this category's 29% of the total. In the base form, on the other hand, we find that ACH is the largest category, at 40%, closely followed by ACT at 35%.

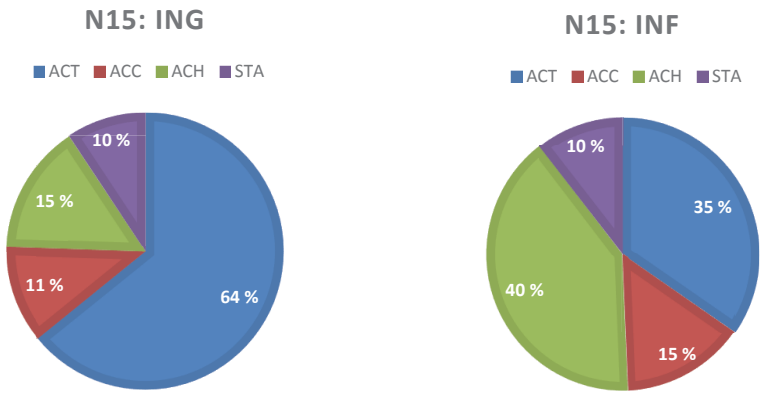

Figure 5.8.3: Lexical aspect distribution of ING and INF in group N15.

The next group under scrutiny is A11, in Figure 5.8.4 below, where we find the same pattern as in the previous groups: ACT is clearly the preferred category with ING, whereas INF favours ACH. There is also a slight tendency for both ACC and STA to be used more with INF.

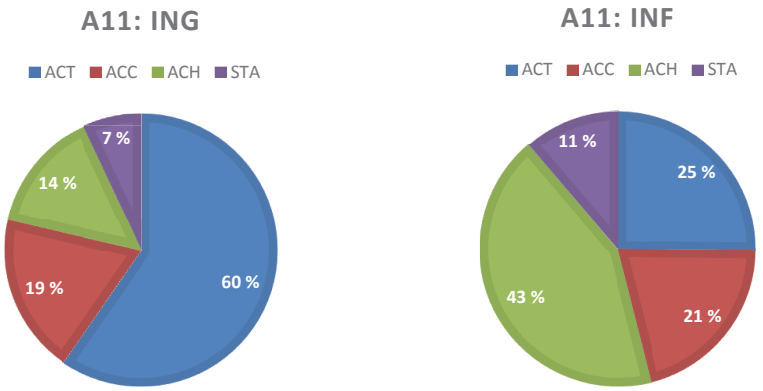

Figure 5.8.4: Lexical aspect distribution of ING and INF in group A11.

Finally, Figure 5.8.5 below demonstrates that group A15 is little different from the rest: ING is clearly associated with ACT verb phrases, with 57% of all tokens in this category, while ACH attracts more INF. However, in this group INF is used equally much with ACT and ACH;

a tendency that was also seen in N15. The category ACC is also more strongly represented in INF than in ING, just as in N15 and A11.

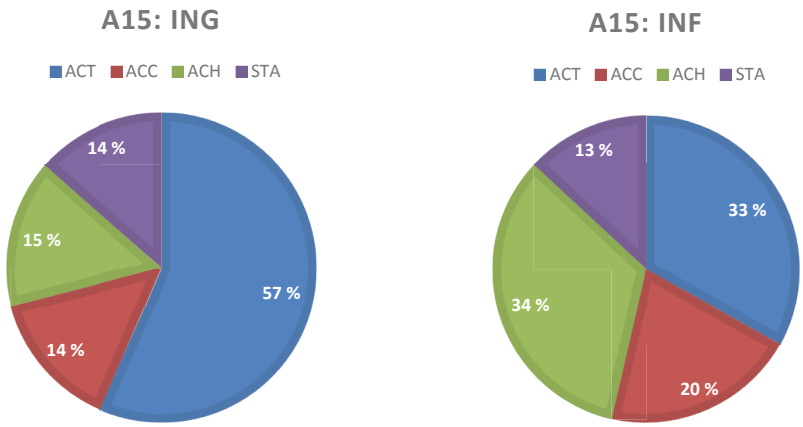

Figure 5.8.5: Lexical aspect distribution of ING and INF in group A15.

In short, all groups display a similar pattern: the two non-finite variants are mainly split over the two categories ACT and ACH, which reflects the results from the analysis of their finite-context counterpart constructions. This finding supports the Aspect Hypothesis. On the other hand, some differences emerge as regards the other two categories. First, we see that ACC is less used in non-finite contexts in general and that the preference for INF in this category is less clear than for the nonprogressive in finite contexts. Second, and most surprisingly, all groups use ING with STA tokens, which clearly contradicts the Aspect Hypothesis. In the two oldest groups, STA is even equally represented in the two formal categories, and in A11 there is only a slight tendency to express it more in the base form. With only six tokens in total, no conclusions can be drawn for N11, but this is the only group where STA is dominantly used in the base form. One might claim this distribution in favour of the AH, which primarily focuses on early learner behaviour, but more data is needed to make such an analysis reliable.

Finally, the tables below give an impression of individual learners' use of the various semantic categories. Table 5.8.5 shows how many learners in each group use each of the lexical aspect categories in non-finite contexts at least once. We see that in N11, the numbers more or less reflect the group distribution of lexical aspect; the two most used categories are ACT, used in 10 texts, and ACH, used in 13 texts, while ACC and STA are found in only three and four texts respectively. The number of texts with non-finite verb forms is 24, which means that there

is very little overlap; the learners who use one category do not tend to use any of the others, as their contribution is limited to 1-3 tokens. In Table 5.8.6, on the other hand, we find that five of these learners use ING with ACT, while two use it with ACC and only one each with ACH and STA.

Table 5.8.5: Number of learners who use the lexical aspect categories.

All non-finite	ACT	ACC	ACH	STA	Total n
nor	**49**	**33**	**51**	**25**	**67**
N11	10	3	13	4	24
N15	39	30	38	21	43
usa	**72**	**59**	**66**	**51**	**76**
A11	35	28	33	19	38
A15	37	31	33	32	38
Total	**121**	**92**	**117**	**76**	**143**

Table 5.8.6: Number of learners who use the lexical aspect categories with ING.

ING	ACT	ACC	ACH	STA	Total n
nor	**38**	**16**	**19**	**12**	**67**
11	5	2	1	1	24
15	33	14	18	11	43
usa	**64**	**33**	**42**	**31**	**76**
11	32	18	19	11	38
15	32	15	23	20	38
Total	**102**	**49**	**61**	**43**	**143**

In group N15, 43 of 44 texts contain non-finite verb forms, and most of these contain both ACT and ACH, followed by ACC in almost 3/4 of the texts and STA in only half of them. When it comes to the use of ING, however, more than 3/4 of the N15 texts (33)[115] contain this form with ACT, while the numbers are reduced to about half in all the other categories. Nevertheless, we still see that the other half of these learners find ING acceptable with ACC, ACH and even STA. This distribution shows that the usage is not an anomaly found in only some of the texts and that these learners do indeed find ING compatible with all semantic types, even though ACT is the most frequent choice.

The native-speaker groups show a very similar pattern: in A11, most of the texts contain ACT and ACH, ACC is represented in 3/4 of the texts and STA in half of them. When we look at ING only, ACT is used in as many as 32 in 35 texts, while only 19 in 33 use the form with ACH and 11 in 19 with STA. The result is slightly different for ACC in this group, as about 2/3 of the texts that contain this category have it with ING, but this only confirms the relative frequency pattern predicted by AH, with ACC as the category that is second most compatible with ING, after ACT.

Group A15 is no exception to the general pattern we have seen so far: most of those who use non-finite ACT also do so with ING (32 in 37), while the numbers go down for the

[115] Proficiency levels are not taken into consideration in this analysis, as A1 do not use any ING and there are considerably fewer at level A2 than B, but it is worth noting that the ones who do not use ACT with this form are all at the A2 level; at the B level all texts contain ACT with ING.

other categories. On a more detailed level, however, we find that more texts in this group have ING with ACH than with ACC. In addition, A15 stands out in that a large number of texts contain non-finite STA (32 in 38) and as many as 20 of these have it with ING.

There are several conclusions to draw from this overview: First, there is no doubt that ACT is associated with ING as well as the progressive in these learner groups. Second, the pattern for the other Vendler categories is not as clear-cut, as they are all quite likely to be used with ING, even STA, which was not predicted to occur with this form at all, but turns out to be used with more relative frequency than ACH. Third, the usage seems to be representative, as it is not clustered in a small number of texts, but spread across all texts that contain non-finite forms. Finally, and crucially, L2-learner and native-speaker intuitions seem to largely coincide as regards lexical aspect and non-finite use of verb forms, particularly in the oldest and most proficient learners.

5.8.3 Distribution of ING across constructions

It was argued in section 3.4 that V-*ing* might first be seen as a finite verb form in its own right, used with or without auxiliary BE (see e.g. Housen 2002b), and that use in other constructions may come gradually with greater learner proficiency. So far, it has been demonstrated that learners at the A1 level only use V-*ing* in finite contexts and that use in non-finite contexts increases with proficiency until it reaches native-like proportions at the B level. This section looks at the use of ING in more detail, as it deals with the construction types used with ING in the present dataset. The aim is to investigate which constructions are found with ING and to ascertain whether the relative frequency with which ING is used in the different constructions is similar to or different from that of the native-speaker groups. The relevant constructions are listed and defined in section 4.8.2.

Table 5.8.7 below gives the distribution of the various ING constructions in both raw numbers and percentages, for each of the groups as well as the total. In the youngest Norwegian group, the numbers are, as already pointed out several times, far too low to draw any conclusions, but it may be noted that most categories are represented, with adverbs and adverbial clauses as exceptions.

Table 5.8.7: Groupwise distribution of constructions with ING.

	N11		N15		A11		A15		total	
	n	%	n	%		%		%	n	%
Adjective	1	7,1	11	5,2	6	2,4	13	5,9	30	4,5
Adnominal	1	7,1	53	25,1	110	44,5	24	11,0	188	27,2
Adverb		0,0	1	0,5	1	0,4	2	0,9	4	0,6
Adverbial	1	7,1	2	0,9		0,0		0,0	3	0,4
Adverbial clause		0,0	29	13,7	19	7,7	34	15,5	82	11,9
be going to[116]	1	7,1	4	1,9	14	5,7	12	5,5	31	4,5
Nominal	6	42,9	51	24,2	45	18,2	67	30,6	169	24,5
Noun	1	7,1	6	2,8	4	1,6	7	3,2	18	2,6
Supplementive	1	7,1	52	24,6	47	19,0	58	26,5	158	22,9
Uncertain	2	14,3	2	0,9	1	0,4	2	0,9	7	1,0
Total	**14**	**100,0**	**211**	**100,0**	**247**	**100,0**	**219**	**100,0**	**691**	**100,0**

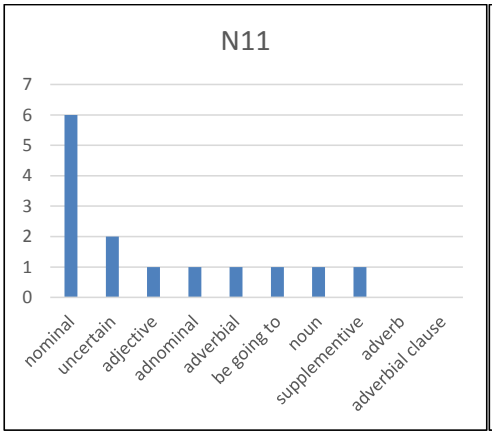

Figure 5.8.6: Constructions with ING, N11.

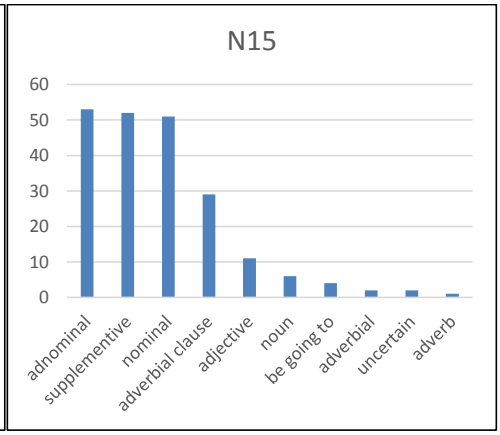

Figure 5.8.7: Constructions with ING, N15.

The only category that stands out as relatively frequent in this group is nominals, with six of the fourteen tokens, as we can also see in Figure 5.8.6 above, where the categories are shown in descending order of frequency[117]. These are without exception complements of *aspectual verbs*, i.e. "verbs of beginning, continuing and ending" (Quirk et al. 1985: 1192); in other words, verbs that highlight some part of a process. Most of these verbs can take either a *to*-infinitive or *-ing* as complement, and there are also five tokens of the former in this group.

[116] *be going to* is counted as part of a finite verb phrase elsewhere in this study, but included in this overview of "other *-ing* constructions" to show the spread of *-ing* beyond the progressive (see section 4.8.2.2).

[117] The frequencies are shown in raw numbers in these bar charts, as the tokens in N11 are too few to justify illustrating with a percentage-wise distribution.

The verbs used are *begin, start* (3 tokens)*, continue,* and *stop*, which means that all three parts of the process are represented, but more so the beginning. The verbs found as complements are *chase, look, scream* (beginning), *shout* (continuing), and *run* (ending); all of these are typically used in activity verb phrases. However, the infinitival complements are also activities (*look, haunt* [hunt?]*, run*), so there is no aspectual difference in the distribution.

The results for N11 are in stark contrast to the oldest group, where ING is used with practically the same frequency as in the native speaker groups. With a total of 211 tokens in this group, it is easier to detect a pattern. In both Table 5.8.7 and Figure 5.8.7, we see that three categories are almost equally represented: adnominals, nominals and supplementives each account for about 25% of the tokens, and together they make up about 75% of the total. Adverbial clauses are only used in 13.7% of the cases and the remaining categories are only marginally used. They are, however, all represented. As in N11, the nominal category is dominated by complements of aspectual verbs, where *start* is the most used main verb, with 39 of 51 tokens. We will look closer at these verbs in section 5.9.6.

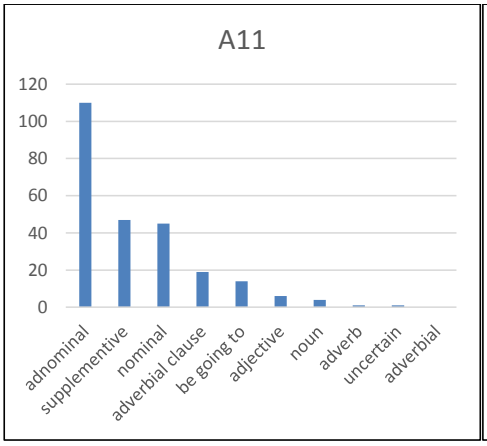

Figure 5.8.8: Constructions with ING, A11.

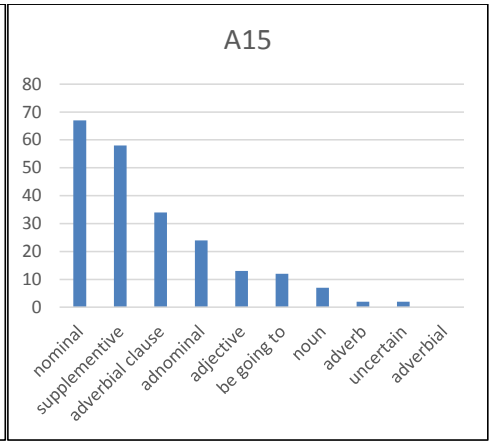

Figure 5.8.9: Constructions with ING, A15.

In the native-speaker groups, we find that the youngest informants (Figure 5.8.8) use adnominals most frequently, in 44.5% of all cases, whereas nominals and supplementives each are found with a little less than 20% of the tokens. However, the large number of adnominals may be explained by the fact that a couple of informants in this group almost consistently use the descriptive construction *I see* + NP with a postmodifying clause, instead of telling the story as a third-person narrative, while others shift from initial descriptions to a narrative. As many as 98 of the adnominals are found in this construction. Adnominals are used in all the typical

narrative texts as well, but only one or two times in each. There is one of these descriptive texts in group N15 as well, which accounts for about one third of the adnominals, but the A15 texts are all typical narratives, which may explain the lower frequency of adnominals in this group, as seen in Figure 5.8.9 above.

When the descriptions with *I see* are disregarded, supplementives and nominals are the most used categories in both A11 and N15. The nominals are mainly complements of aspectual verbs in this group as well, with *start* and *keep* as the dominant main verbs (15 and 11 tokens respectively), but there is a greater variety than in the Norwegian groups, with main verbs such as *come, go on, end up, like,* and *try*.

In A15, nominals is the most used category, with as many as 44 tokens of *start* + complement. The remaining 21 are complements of verbs such as *keep, try, love, come*, as well as one subject clause: *He decides that* ***leaving them there*** *is the right thing to do so he turns and waves to them and walks home.* (1339: boy, A15). Supplementives are more frequent than subordinator-headed adverbial clauses in this group as well, and non-clause constructions are quite infrequent here, too. One construction that is used more in the native-speaker groups than in the Norwegian groups is *be going to*. Narratives focused on present or past events do not give much opportunity to use future-time expressions, but it is nevertheless striking that out of 31 occurrences in the dataset, only five are found in the L2 groups, while the rest are evenly distributed between the native-speaker groups.

Overall, all four groups seem to extend the use of *-ing* mainly to progressive-like constructions; first to nominals and then to supplementives. Nominals are predominantly found as complements of aspectual verbs, which in some way or other highlight the situation as a process, whether the focus is on the beginning, the middle or the end. The progressive does not give the same kind of emphasis on a part of the process, but is also a construction that allows us to see a situation as incomplete. Supplementives, on the other hand, are formally non-finite and subordinated, but in function seem to be coordinated with the main clause; in this respect they can be seen as an extension of the finite verb phrase. In Norwegian, this function corresponds to – and is likely to be translated into – a coordinated finite clause or a finite, subordinated adverbial clause. In this respect also, supplementives may be easily associated with a finite verb and thus be perceived as progressive-like by these L2 learners.

5.8.4 Summary

Section 5.8 has shown how the informant groups in this project use *-ing* in constructions other than the progressive, in order to explore H7, which states that *-ing* is first used as a finite verb

form and only later spreads to other constructions with age and proficiency. In addition, H9 predicted that if ING is seen as an extension of the progressive, the Aspect Hypothesis would apply to these other constructions as well. The results largely support H7, as ING is used only in the progressive at the lowest proficiency level. The form is used in other constructions both more frequently and by more individual learners with age as well as proficiency, until learners at the highest proficiency level use these constructions with native-like frequency, as we have already seen for the progressive in this learner group.

When it comes to the Aspect Hypothesis, the results are more varied: the strong connection between activities and *-ing* is attested in non-finite constructions as well, but the use of states with ING seems entirely unproblematic, whereas achievements are less compatible with this form. There is also very little difference between the informant groups in the use of lexical aspect with ING, a finding which suggests that the L2 learners' use of ING is not a result of L1 influence, cf. H10.2, which predicts intergroup heterogeneity in this dataset.

Finally, an examination of the four groups' use of ING in various constructions reveals that L1 influence is most likely not at play in this respect either. Despite the fact that Norwegian has an *-ing* form of its own, with a usage that differs from English (cf. section 3.3.4), nothing in the present material indicates that this form has any influence on the learners' choice of constructions English *-ing* may feature in. On the contrary, all groups seem to favour various clause structures, particularly the ones that have some characteristics in common with the progressive.

5.9 Selected verb categories

From a coarse-grained quantitative analysis of the progressive and related forms, we now move on to an exploration of how some individual verb types are used in the progressive as well as with ING, regardless of how they fit into the lexical aspect categories, which we have seen can be quite problematic (cf. section 4.8.2.2). The verbs in this part of the analysis are mainly chosen because they can be grouped into categories that were seen either as particularly challenging in the semantic classification or because they feature prominently in several scholars' theoretical discussion of said classification[118].

In section 4.9, we saw that the lexical aspect classification had been subjected to an interrater reliability test and that the results were acceptable, but not perfect; the other rater and

[118] Note that there may be some overlap between categories, as some verbs share semantic characteristics with more than one set.

I disagreed in several cases, as is a logical consequence of the contradictory information in the literature, as well as the subjective nature of the interpretation. Rather than acting as a hamper on the analysis, these results further motivate the need to scrutinize some subcategories in detail in a more qualitative analysis. The discrepancy between the two ratings is therefore worth outlining:

The bulk of the disagreement – almost half of the tokens in question – regards VPs the present author – Rater 1 – has classified as accomplishments. Most of these are of very short duration, e.g. *jump up, come out, flip Tyler off*, and a strong case can thus be made for treating these as achievements. However, the decision was made to follow Dowty with respect to verb + particle constructions and he clearly states that such VPs are accomplishments in English (1979: 71). This seems to be in line with Bardovi-Harlig (2000) as well, who treats *come* + endpoint as an accomplishment. Unfortunately, Rater 2 was not informed of this before carrying out the analysis. In addition, a very small number of my accomplishments were seen as activities by Rater 2, but here the divergence seems to hinge on whether or not the situation is interpreted as clearly bounded, e.g. *look everywhere*. Boundedness, or telicity, is thus a feature that will investigated in this section, in particular with regard to the mention of end points in the VP's context (in 5.9.4).

Activities form the second largest category and again there seem to be two major reasons for disagreement: First we have a group consisting of posture verbs and the verb *sleep*. It may well be argued that these are states, as in Rater 2's classification, and in Dowty's (1979) discussion they are treated as such. Shirai (2007), on the other hand, clearly sees them as activities and as the guiding principle in the broad analysis is to follow the convention of the major studies dealing with the Aspect Hypothesis as far as possible, the choice has been made to classify these as activities; another decision that Rater 2 was not aware of. The problem with classifying these verb types makes a closer scrutiny relevant, and posture verbs are singled out since they also represent a potential for transfer in the L2 groups (see section 3.3.4). Second, there is again disagreement as to whether some situations are clearly bounded or not, as in [*owl*] *fly over the boy's head*, where the owl may be interpreted as either passing the boy in flight or flying around in circles. Again, we see that boundedness is an important feature to investigate.

The Rater-1-only achievement group is very small and with motley reasons for disagreement. Here we find VPs such as *frighten, convince, lick, think*, where the question often is whether there is a punctual initiation of the situation or an extension in time. In the case of *lick,* a semelfactive, there may be a single lick (achievement) or several (activity). These things are not always clear from the context. Temporal extension is thus an issue to look further into,

as well as spatial extension, since Durst-Andersen (2000) suggests that young learners perceive situations as spatial, rather than temporal (see section 3.2.2).

Finally, a very specific subcategory of Rater 1's states – perception verbs; mainly *see*, but also one *hear* – was mainly classified as achievements by Rater 2, though there were a few cases of activity interpretations. Vendler and Dowty both acknowledge that these VPs tend to be in different categories depending on context and the question is usually one of initial versus lasting perception, i.e. whether or not the VP is somewhat synonymous with *notice*. In the present thesis, these perception verbs are treated as states unless it is quite clear from the context that it is a matter of initial perception. However, other perception verbs, such as *look, listen*, are usually classified as activities, as they have an active subject agent. As demonstrated in e.g. Ziegeler (1999) and Biber et al. (1999: 471-475), agentivity is a semantic trait that often leads to use of the progressive and will therefore feature in this discussion. On the other hand, all perception verbs denote physical experience, which in turn is concrete and should therefore be compatible with the progressive. In light of the distinction between agentive and non-agentive perception verbs, it is likely that agentivity is more important for the choice of aspectual marking. An examination of this category, in section 5.9.5, will give some answers in this respect, when it comes to learner usage.

The focus in this section is mainly on semantic groupings of *verbs,* and not on their occurrence in verb phrases or larger contexts. Before I examine specific semantic categories, however, one set of verbs is grouped together simply because they are the most frequent ones in the dataset, and thus the most likely to reveal reliable trends; these trends can then be explored further and shed light on by adding less frequent verbs with similar semantic traits. Throughout this analysis, reference is made, where applicable, to Biber et al.'s quantitative and qualitative observations from corpus data about the likelihood of individual words to occur in the progressive. The results are also compared to Wulff et al.'s (2009) study, which rates the association strength between verb types and verb morphology in two native-speaker corpora of spoken language, MICASE[119] and BNC[120]$_{\text{spoken}}$, and holds this up against native speakers' telicity ratings of the same types. Their claim is that there is a strong negative correlation between mean telicity and use in the progressive (2009: 365). The present analysis will, among other things, discuss whether telicity seems to be a decisive feature in the learner groups in this study as well, and whether the use of the progressive may be explained by what I term *referential salience* (see sections 3.4.1, 3.5 and 4.8.3).

[119] Michigan Corpus of Academic Spoken English.
[120] British National Corpus.

5.9.1 Most frequent verbs

For this part of the analysis, all verbs represented with more than 100 tokens were selected. The number may seem arbitrary, but was chosen partly because it was judged sufficiently high to reveal any patterns in usage, and partly because there is a quite noticeable gap between *say* with 107 tokens and the next on the list, *sleep*, with 81 tokens, which makes it a good place to draw the line. When counting tokens of one type, all forms and meanings of a verb are collapsed, including variants with different adverbial particles. For instance, *fall* comprises *fall, fall* + particle and *fall asleep*; *have* includes *have* and *have got,* etc. Even *wake up* includes a few instances of just *wake*. This way, what is under scrutiny is the likelihood of a particular verb to combine with the progressive or ING, without reference to its context.

5.9.1.1 Finite contexts

In Table 5.9.1 below, we see the 17 most frequent verb types in the dataset, in finite contexts, listed in descending order. Their distribution between progressive (PROG) and nonprogressive (NON) aspect in each of the informant groups is also given here. Together, these 17 verb types account for well over 50% of the 6891 finite verbs in the dataset.

Table 5.9.1: Overview of most frequent verb types.

	N11		N15		A11		A15		All
Verbs	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**Total**
Look	58	96	67	36	125	56	79	36	553
Fall	73	43	107	18	77	5	72	7	402
See	54	3	65		178	1	40	1	342
Get	17	2	108	13	87	12	73	10	322
Find	40	12	71	1	72		90	2	288
Go	49	13	56	13	74	7	59	5	276
Come	46	27	53	7	33	3	51	5	225
Run	25	34	53	25	22	4	31	10	204
climb	24	24	43	7	31	7	44	7	187
have	38		39	3	43	4	41	2	170
start	6	1	61	3	29		63		163
jump	20	26	35	9	30	4	27	5	156
try	12	3	27	19	15	19	16	19	130
sit	6	28	25	34	7	8	12	3	123
take	36	10	36	2	16	2	16	4	122
wake up	17	4	31	1	23		29	3	108
say	39	4	19	6	18	4	16	1	107
Total	**560**	**330**	**896**	**197**	**880**	**136**	**759**	**120**	**3878**

The most used verbs are the ones that, not surprisingly, single out salient events in the Frog-Story narratives: *look*, which refers to all the scenes where the boy looks at or for the frog; *fall,* which refers to several falling incidents, etc. Most of these verbs are also quite dynamic, as they denote different types of movements and transitions, as in *get, find, go, come, run, climb, jump,* etc.

These 17 verbs may be tentatively grouped into four categories, based on the semantic criteria telicity and temporal/spatial extension, where category membership may vary with context; the grouping here is thus quite schematic:

1. Atelic verbs with extension in both time and space. In this category we find *run* and *try*, if the latter is seen as an attempt at a physical action.
2. Atelic verbs with extension in time, but not in space. Verbs in this category are *see* and *have*, in their canonical stative interpretations, as well as *sit* and *look*, although the latter two may be seen as more spatial than the former, as the subject's physical behaviour is relevant to the verb meaning. These two may therefore be placed on a continuum between categories 1 and 2.
3. Telic verbs with both temporal and spatial extension, including those whose extension in time is either somewhat limited or not central to the verb meaning, but which clearly have some extension in space. The verbs in this group are *fall, go*[121]*, come, climb, jump, take* and in many cases *get*, in phrases like *get dressed, get up*.
4. Telic verbs whose extension in time is very limited or non-existing, and which have little or no extension in space. Verbs that meet these criteria are *find, start, wake up, say*[122]*,* and in many cases *get*, as in *get angry,* and *see* when the meaning is synonymous with *notice*.

These categories are clearly related to the Vendler ones, but with more focus on spatial extension than most variations over the theme of lexical aspect described in chapter 3. The emphasis on spatial extension has to do with the proposed importance of *referential salience* in the choice of progressive aspect, as seen in section 3.4.1, as well as Durst-Andersen's (2000) claim that children do not think of situations in terms of temporal events, but rather as spatial ones (cf. section 3.1.3).

[121] Mainly used with end points in this dataset.
[122] This verb is difficult to classify, as duration depends on the length of the utterance. It may also have some spatial extension, if sound and mouth movement is considered.

Development across age and proficiency groups

The frequencies in Table 5.9.1 are given in raw numbers for each of the categories nonprogressive (NON) and progressive (PROG) and for each of the four informant groups. The distribution becomes clearer in the line charts below, which show learner development across age and proficiency groups, measured in the percentage of PROG of each verb. To avoid too crowded charts, a distinction is made between verbs that descend in frequency or whose frequency remains unchanged, on the one hand, and the ones where the frequency increases, on the other.

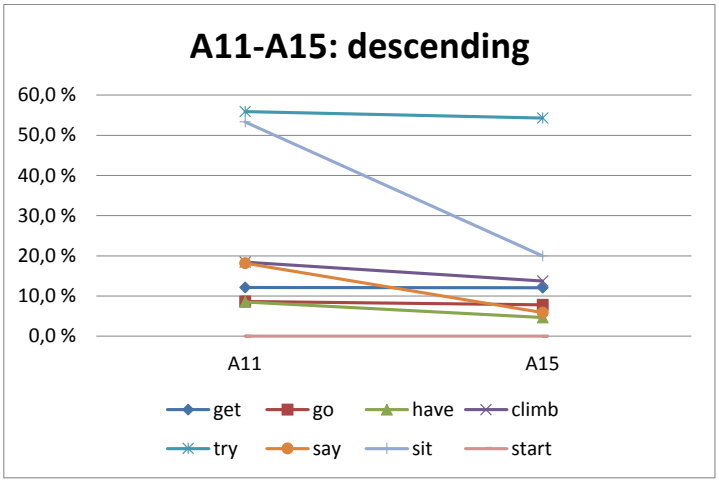

Figure 5.9.1: Verbs with descending or unchanged frequency across age groups, native speakers.

Figure 5.9.1 above shows the verbs where the frequency either descends or remains unchanged from age 11 to age 15 in the American groups, listed by order of frequency, and given in percentages of the total number of tokens for each verb type. There is very little development in most of these verbs, and often what at first glance seems to be significant variation is just due to the large effect that a difference of one or two tokens may have on a small sample. Still some of them stand out, for various reasons. First, we see that *try* is used very much with the progressive in both A11 and A15, at around 55% of all tokens. This is a verb that denotes an effort to complete a situation, but it does not focus on the completion itself; rather, if the situation were successfully completed, the word *try* would usually not adequately describe it. In the Frog Stories, *try* also mainly refers to a visible attempt. It is thus highly compatible with the semantics of the progressive. Second, the verb *start* is not used with the progressive at all, in either group. This verb focuses on the initial point of a process and it is in

fact only through the progressive that it gains duration, i.e. extension in time. The initiated process may be a visible situation, but 'start' in itself may be seen as too abstract to be counted as visible. Third, *sit* is the only verb in this group that shows a sharp decline in use with the progressive, from over 50% in the youngest group, to just 20% in the oldest one. The reader is reminded that *sit* is one of the posture verbs, which are problematic because there is disagreement as to whether they should be classified as states or activities (cf. sections 3.4.2 and 4.8.2.2). The drop in frequency here indicates that stativity might gain in importance in the interpretation of the verb meaning, and duration or time stability becomes less important – with the caveat of whether these features do indeed play a part in how the users conceptualize the progressive. It is also possible that the referential salience becomes less important with age.

The other verbs in Figure 5.9.1, *get, go, have, climb* and *say*, all have a frequency of less than 20% in both groups and no great differences from one age to another. These verbs are either telic (particularly if an end point is specified) or not extended in space (*have*). They all may have some form of extension in either time or space, but of the two, space yields the highest frequency, in *climb, get,* and *go*, followed by temporal *say* and *have* in the oldest group. In the youngest group, on the other hand, *say* is as frequent in the progressive as *climb*.

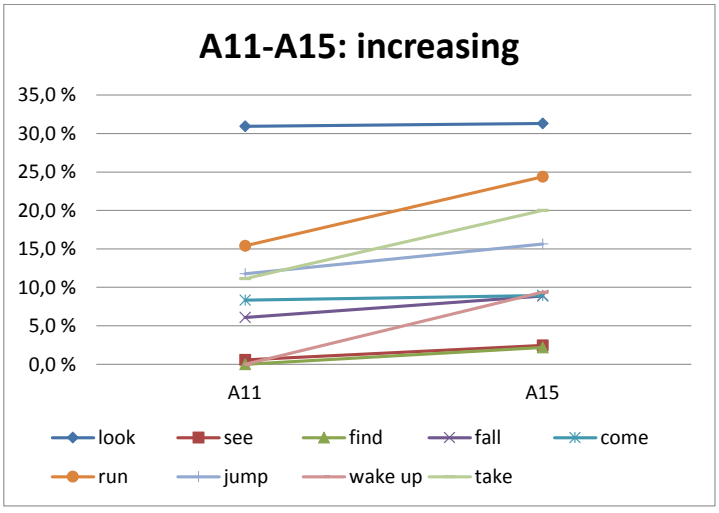

Figure 5.9.2: Verbs with increased frequency across age groups, native speakers.

In Figure 5.9.2, we see the verbs whose frequency in the progressive goes up with age. The most frequent verb in the progressive here is *look*, which remains quite stable at a little over 30%. That this verb is used with the progressive more often than average is not surprising,

as it is mainly classified as an activity since it is both durative and atelic. There is, however, no extension in space, but the subject is agentive, which gives the situation salience. At the other end of the spectrum, the typical state (atelic, temporal extension) or achievement (telic, no extension) verb *see* and typical achievement *find* are hardly used in the progressive at all, whereas *wake* (*up*) – also typically ACH – goes from no use in A11 to almost 10%[123] in A15. It should be remembered that *wake up* – despite the short duration – belongs to the category V + particle, which Dowty claims are accomplishments in English. In addition, *wake up* may have a build-up phase, which can be extended, in contrast to *find* and *see*, which are typically sudden events.

There is one verb that demonstrates a noticeable increase in use with the progressive, which cannot easily be written off as an effect of low numbers; *run* (*take* has a similar curve, but is less frequent, overall.) This is a verb that is often combined with an end point (telic: ACC), but nonetheless has a main focus on the activity component of its meaning; the higher frequency in the oldest group may indicate a greater focus on manner (cf. section 5.9.4 below). The other verbs in this chart, *fall, come, jump* and *take,* all have generally low occurrence with the progressive and are all mainly telic (*jump* is predominantly found with a particle in this dataset, e.g. *jump up*, and is thus not a semelfactive) and of short duration.

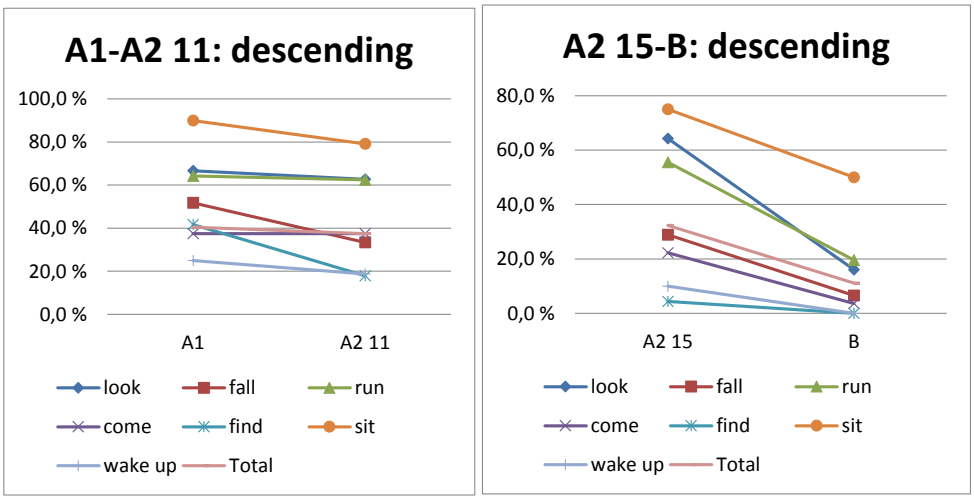

Figure 5.9.3 a) and b): Verbs with descending or unchanged frequency across L2 age and proficiency groups.

[123] I.e. three tokens; always bear in mind that the numbers are low and can only point to tendencies that may be explored at a larger scale in another context.

The next line charts show the corresponding frequencies in the Norwegian texts. However, these texts are grouped according to proficiency level for each of the age groups, and the results are therefore shown in two different charts. In Figure 5.9.3 a) and b), we find the verbs where the frequency with the progressive goes down both from group A1 to group A2 11 and in Figure 5.9.3 b) and from group A2 15 to group B (including the total of all the most frequent verbs, which shows the same trend). These verbs all become less frequent both with proficiency, within age groups, and from one age group to another. In general, the youngest and least proficient learners use the progressive far more frequently than both group B and native speakers, but one verb stands out as particularly favoured by the progressive in all groups; as with the youngest native speakers, *sit* has a very high frequency, even at the B level, at 50%. This is in contrast to A15, where *sit* does not have a much higher frequency than the combined average.

In these charts, we also see that *look* is used with the progressive in around 65% of the tokens in groups A1, A2 11 and A2 15, but drops to around 15% in B – compared to 30% in both native-speaker groups. A very similar trend is seen for *run*, whose frequency we noticed went up in the native speakers. Both of these are verbs that have a pronounced activity component. On the other hand, the clearly telic verbs *fall, come, find* and *wake up* also have a fair share of progressives initially, particularly *fall* at 50% in A1; this is a verb that denotes extension in space, if not much in time. These four verbs have a more gradual decline across groups than the first three, and there is no use at all of typical achievement verbs *find* and *wake up* in the progressive in group B.

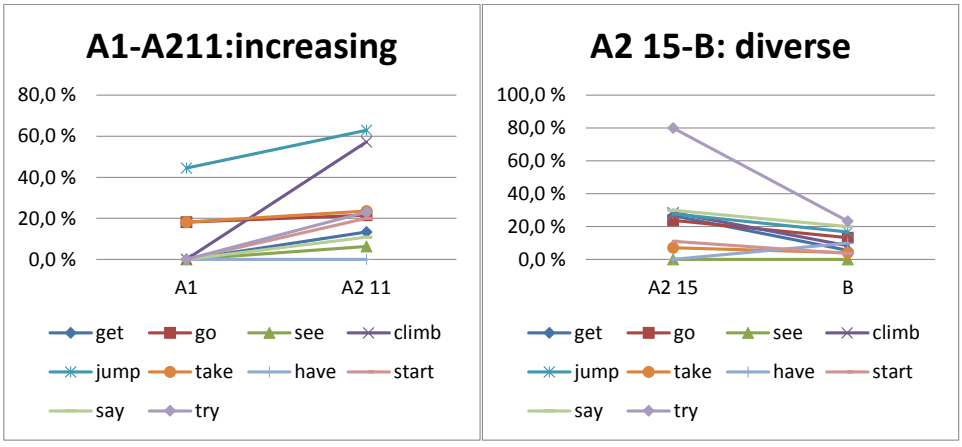

Figure 5.9.4 a) and b): Verbs with different patterns in the L2 age groups.

The next line charts, Figure 5.9.4 a) and b), presents the verbs that pattern differently in the two age groups. Figure 5.9.4 a) shows verbs whose frequency with PROG goes up (or remains unchanged in the case of *have*) with proficiency in N11, while the same verbs follow a different pattern, mainly descending, in N15, in Figure 5.9.4 b). Seven of these are not used in the progressive at all in the A1 group, although they are all found in the nonprogressive: *climb, try, start, get, say, see* and *have*. These verbs display an array of developmental directions: *climb* and *try* both have a sharp cline and peak at high percentages; *climb* at 57% in A2 11, before it drops to 28% in A2 15 and only 8% in group B; and *try* goes as high as 80% in A2 15, although both A2 11 and B have this verb at 23%. The frequency of the others increases much less, and apparent differences in the groups are most likely due to the effect of low numbers when it comes to *start*, *get* and *say*. In the typically stative verbs *see* and *have*, however, there are some noticeable deviations from the general avoidance of the progressive: in A2 11 there are three tokens of *see* in the progressive, e.g. *Then they **are seeing** are falling tree stam.* (informant 1109), while three tokens of progressive *have* are found in group B, e.g. *The boy **is having** a frog in a box on the floor.* (informant 1266).

Another verb with a high occurrence in the progressive, *jump*, starts out high in A1 at 45%, goes even higher in A2 11 at more than 60%, but is only used around 20% in the oldest groups; a bit less in B than in A2 15. As noted above, this verb is mainly found with adverbial particles and consequently not interpreted iteratively; it is thus telic and of short duration, but has extension in space. Of the remaining two verbs in this chart, *take* and *go* start out with the same frequency at age 11, at both proficiency levels, but at age 15 telic, punctual *take* is used less than *go*, which has some duration and is usually found in telic phrases like *go out*. Both have some extension in space, but *go* more so than *take.*

Frequency rankings

From the above charts it is possible to detect some patterns in the use of the progressive with these high-frequency verbs. To illustrate more clearly, the verbs are ranked in order of relative frequency for each of the groups in Table 5.9.2 below; verbs that do not occur in the progressive at all share 17th place. Group A1 seems to display little sensitivity to the semantic profile of the progressive, if this is defined as an atelic, durative activity; on the one hand, the three verbs with the highest proportion of progressives – *sit, look* and *run* – are indeed typically seen as activities, although the status of *sit* may be contested. With 90% progressives, this is also the verb with the relatively highest frequency, and it should be remembered that this is a verb that features in the closest thing Norwegian has to a progressive construction: the V+V construction,

where the first V is a posture verb. In addition, it is among the verbs most distinctly associated with the progressive in Wulff et al.'s study, ranked third in MICASE and sixth in BNC_{spoken}.

Table 5.9.2: Most frequent verbs ranked in order of frequency with the progressive, for each group.

Rank	A1	A2 11	A2 15	B	A11	A15
1	sit	sit	try	sit	Try	try
2	look	jump	sit	try	Sit	look
3	run	look	look	say	look	run
4	fall	run	run	run	climb	sit
5	jump	climb	say	jump	Say	take
6	find	come	fall	look	Run	jump
7	come	fall	climb	go	Get	climb
8	wake up	take	jump	have	jump	get
9	go	try	get	climb	take	wake up
10	take	go	go	fall	Go	come
11		start	come	get	have	fall
12		wake up	start	take	come	go
13		find	wake up	start	Fall	say
14		get	take	come	See	have
15		say	find			see
16		see				find
17	climb, get, have, say, see, start, try	have	have, see	find, see, wake up	find, start, wake up	start

The next four on the list, on the other hand – *fall, jump, find* and *come* – are telic and of short duration; *come, fall* and *jump* do, however, have spatial extension, and *find* probably has some referential salience, as it refers to something suddenly entering the perceptual field, thus getting attention. It is otherwise difficult to explain why the youngest learners should use this verb so frequently in the progressive, as it is among the verbs used less than 2% of the time in this construction in the Longman Spoken and Written English Corpus (LSWEC) (Biber et al. 1999: 471).

The typically stative verbs *have* and *see* are not used in the progressive at all, as expected according to the Aspect Hypothesis, but neither is *take, try, climb, start, say* or *get*, which do not have any common traits that should rule out the progressive. In fact, one of them – *try* – is the most frequent verb in the progressive in both of the native-speaker groups. This also the verb that Wulff et al. (2009: 362) find to have the most distinctive association with the

progressive in MICASE, although it does not make the top ten in BNC_{spoken}; the native-speaker groups thus show the same trend as adult Americans.

Group A2 11 also has *sit* as the verb with the highest proportion of progressives, and *look* and *run* are also high up. Both are on the top ten lists in Wulff et al.'s study; *run* is in eighth place in MICASE, while *look* is in first place in MICASE and comes in second in BNC_{spoken}. However, the second most frequent verb is the telic, short verb *jump* (more than 60% progressives); and *climb, come* and *fall* are also very frequent, while *try* is only used moderately. On the other hand, the more punctual verbs are found towards the bottom of the list in this group, and stative *see* and *have* are used the least in the progressive (*have* not at all). In other words, this group seems to make a distinction between verbs with clear temporal and/or spatial extension as part of their meaning on the one hand, and punctual or stative verbs on the other. The distinction is gradual, however, and forms a continuum from clear temporal and/or spatial extension, telic or not, to no temporal and/or spatial extension.

In A2 15, *try* is the most frequent verb in the progressive, ranked before *sit,* although the difference between the two is not great. These two are followed by *look* and *run*, which are also atelic. All of these feature on Wulff et al.'s rankings. Next on the list is *say*, which may refer to long or short utterances, and which Biber et al. mention among "verbs frequently occurring with the progressive aspect (more than ten times per million words)" (1999: 472). Next, the six verbs after *say* may all refer to situations extended in space, and finally there are four verbs with little temporal or spatial extension, and two stative verbs that do not occur in the progressive. Thus, space seems to be a more important factor than time in interpreting the progressive at this stage of learning, but telicity seems to play a greater role than in A2 11.

In the most proficient learner group, *sit* tops the list once more, as the only really high-frequent verb, at 50%, while *try, say, run, jump* and *look* cluster around 20%. This is followed by gradually lower frequencies, with no progressives in *wake up, find* and *see.* The order of the verbs is slightly different than in A2 15, particularly with the three tokens of progressive *have* as an anomaly, but there seems to be a preference for spatial extension with the progressive in this group as well; a trend that supports the notion of referential salience. In addition, the most frequent verbs are typically agentive. Telicity distinctions, on the other hand, are less prominent in this group.

Both native-speaker groups favour *try,* at around 55%, over *look* at a little over 30%, but they differ in their use of *sit*, as noted above, with this verb in second place in A11 and in fourth in A15. Wulff et al.'s study of telicity ratings reveals that *try* receives a very low score based on native speakers' intuitions; it is thus regarded as highly atelic (2009: 364). After *try,*

sit and *look,* A11 has three verbs, *climb, run* and *say*, where the former two have both temporal and spatial extension and the latter potentially some temporal extension, but the feature they share is clear agentivity. Biber et al. remark that "the common progressive aspect verbs typically take a human subject as agent […], actively controlling the action (or state) expressed by the verb" (1999: 473), a feature that Ziegeler also sees as more and more relevant for the choice of aspect form, as noted in the beginning of section 5.9. These three are followed by verbs that have short duration, but spatial extension, with the exception of *have*; this verb is only used in the phrases *have fun* and *have a good/hard time*, which may be interpreted as having limited temporal extension, but no clear end point. The progressive may thus serve to stress the limits of an imperfective situation, in line with Langacker's (2001) understanding of this construction. At the bottom of the list, A11 has *see, start, find* and *wake up*, with little or no occurrence in the progressive (there is one token of *see*). Again, the least frequent verbs are either stative or punctual, and – with *start* as an exception – lack agentivity.

In A15, the verbs are ranked in a slightly different order, but with such low absolute frequencies, this is likely to be rather random. However, there are some noticeable differences: First, only one verb – *start* – is not used in the progressive at all. Second, active *run* is ranked higher than stative *sit.* Third, *wake up* seems quite acceptable in the progressive, ranked above verbs like *come, fall, go* and *say*.

In sum, at the lowest proficiency level there is less sensitivity to the conventional semantic features of the progressive and perhaps more of a tendency to use it semi-arbitrarily as one of two present-tense forms. This is partly in line with Housen's observation that at an early stage, "the different forms of the verb behave like allomorphs, appearing in either free or complementary distribution" (2002b: 160). With increased proficiency, however, comes a distinction that favours verbs with spatial and/or temporal extension; telicity also comes into play at level A2 15. The verbs with little or no use in the progressive are either typically stative or punctual. The same tendency is seen in the most proficient L2 learners, as well as in the native-speaker groups, but with much less use of the progressive overall and a stronger focus on agentivity.

5.9.1.2 Non-finite contexts

Before leaving the topic of most frequent verbs, it can be useful to compare the usage in finite contexts with that of non-finite ones. None of these verbs is nearly as frequent as their finite counterparts, and they do not occur in the same order of frequency, but the 18 most frequent verbs have been listed in Table 5.9.3 below in order to make a brief comparison between usage

in finite and non-finite constructions. We see that many of the same verbs are high-frequent in non-finite contexts as well, but in addition we find the verbs *yell, call, chase, play, bark,* while *have, start, wake up, say* have not made the list.

Table 5.9.3: Most frequent verbs in non-finite contexts, all groups.

	N11		N15		A11		A15		All
Verbs	ING	INF	ING	INF	ING	INF	ING	INF	**Total**
look	2	3	31	17	48	14	21	26	162
get		4	1	26	4	31	3	17	86
find		5	3	20	1	16	4	22	71
see		5		18		14	2	28	67
run	1	3	8	4	10	4	15	3	48
yell			5	1	8	2	17	7	40
go				8	3	14		15	40
call			1	8	6	5	11	3	34
try			5	2	13	1	5	7	33
chase	1		1	4	8	5	11	1	31
fall	1		5	7	6	6	1	4	30
play		1	4	12	3	2	1	5	28
climb			4	2	5	5	1	9	26
take		3	1	8	2	2	3	6	25
sit	1		11	1	5		7		25
come			4	2	3	6	2	5	22
bark			5		10	1	5		21
jump				6	8	2	2	1	19
Total	**6**	**24**	**89**	**146**	**143**	**130**	**111**	**159**	**808**

The verbs that were high frequent in the progressive, *look, sit* and *try,* seem to be even more compatible with ING: Group N11 does not use ING much overall, but two of three tokens of *look* and the only token of *sit* are in this form rather than the base form. In N15, we find almost twice as many tokens of *look* with ING as with INF, while A11 has almost four times as many tokens of this verb in ING than in INF. A15 has a lower frequency of this form, but still almost half of all tokens of *look*. As for *try*, N15 and A11 clearly prefer ING, and A15 use the two forms almost equally, while ING is the chosen form for *sit* in all groups; only N15 has one token in the base form.

Verbs that were generally low-frequent in the progressive, on the other hand, *see* and *find,* tend to be found with INF rather than in ING. Only A15 uses *see* with ING, in two of 28 tokens, while *find* is used in very small proportion by N15, A11 and A15. The other verbs

display various patterns: All groups prefer INF in the clearly telic verbs *get, go, take,* in contrast to atelic *run* and semelfactives *yell, bark*. With the remaining verbs, the groups differ. A15 prefers the base form with *fall, climb*, where N15 and A11 use both. With *come,* all groups use both forms, but the American groups lean towards INF, and with *jump* only the native speakers use ING*,* although the L2 learners use this verb frequently in the progressive. Finally, atelic *chase* and utterance verb *call* are mainly used with ING in the native speakers, but N15 prefer INF, and *play* is mainly used with INF in the two oldest groups, while A11 has three tokens of ING and two of INF for this verb.

It is not easy to find a reliable pattern in this usage, not least because the number of tokens is low, but it seems that telicity is more important than temporal and/or spatial extension: atelic verbs seem compatible with ING (though stative *see* is not). Telic verbs tend to be in INF, but the different groups use the two forms variably. To illustrate this differences, the most clearly atelic (and non-stative) verbs and their score for ING are highlighted in yellow in Table 5.9.3, while the most clearly telic verbs are highlighted in green, along with their score for INF.

The results presented here lay the foundation for a more detailed analysis of a small selection of semantic groups below, where less frequent verbs can be included to see whether the tendencies seem to hold for entire groups of related verbs or are simply frequency effects of the occurrence of the progressive with single, much-used verbs.

5.9.2 Posture verbs

As we have seen above, the posture verb *sit* is by far the proportionally most frequent verb in the progressive in the L2 groups, and among the most high-frequent ones in the native-speaker groups as well. These verbs are particularly relevant to the present study, since they feature in progressive-like constructions in Norwegian, as discussed in section 3.3.4. Hypothesis 10, part 3, predicts that Norwegian learners will use these verbs more than native speakers, and more so with increased proficiency.

In Table 5.9.4 below, all tokens of posture verbs are listed, and a distinction is made between verb phrases with and without an adverbial particle, so that e.g. *sit* and *sit down/up/upright* are treated separately. First, the table shows that the Norwegian learners use posture verbs more than twice as often as the native speakers, with 125 versus 50 tokens respectively: *sit* alone is used four times as often in the L2 groups as in the native-speaker ones. In other words, the verbs do not only have higher ratios of PROG, they are also more frequent in raw numbers. The oldest Norwegian group uses these verbs particularly much, and as many as 58 tokens are found at the B level.

Table 5.9.4: Distribution of posture verbs across groups, in raw numbers.

	N11		N15		All N	A11		A15		All A	All
Verbs	**non**	**prog**	**non**	**prog**		**non**	**prog**	**non**	**prog**		**Total**
sit	6	28	21	34	89	3	8	7	3	21	110
stand	1	1	5	7	14	3		1	4	8	22
lie, lay (=lie)[124]	1	1	4	5	11		4	1	1	6	17
hang				3	3		2			2	5
sit down, up, upright			4		4	4		5		9	13
stand up			2		2	1		1		2	4
lay, lay down			1		1	1				1	2
hang on			1		1			1		1	2
Total	**8**	**30**	**38**	**49**	**125**	**12**	**14**	**16**	**8**	**50**	**175**
%	21	79	44	56		46	54	67	33		

This in itself is an indication of L1 influence, and in line with H10.3, which predicts higher frequencies of these verbs in Norwegian L2 learners than in native speakers, and that the effect will increase with higher general proficiency. Moreover, "bare" posture verbs, i.e. the ones without an adverbial particle are predominantly used in PROG, except in A15, where this variant still approaches 50%. The use of a particle seems to make all the difference; there is not a single token of any of these verb + particle constructions in the progressive in any of the groups. In fact, N11 does not use particles at all, which goes some way towards explaining the high percentage of PROG in this group. On the other hand, the discrepancy between the American groups in the use of *sit* seen in section 5.9.1 above cannot be explained by differences in the use of particles, and must rather be ascribed to developmental or stylistic differences, insofar as these low numbers are a reliable indication.

Table 5.9.5: Distribution of posture verbs across proficiency levels, finite contexts.

	A1		A2 11		A2 15		B	
Verbs	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**
sit	1	9	5	19	5	15	15	19
stand			1	1	2	3	3	4
lie		1	1			2	4	3
hang						1		2
sit down							3	
stand up							2	
hang on							1	
sit up							1	
lay							1	
Total	**1**	**10**	**7**	**20**	**7**	**21**	**30**	**28**

[124] Native speakers famously tend to confuse *lay* and *lie*; they are therefore grouped when the context clearly indicates that the intended (stative, intransitive) meaning of *lay* is "lie".

Table 5.9.5 above shows the distribution of posture verbs across proficiency levels in the Norwegian groups and reveals that the use of adverbial particles is exclusive to the learners on the B level. However, this does not change the fact that the B group uses posture verbs more frequently than the other groups, as well as more often in the nonprogressive; a somewhat contradictory result, since the association with the progressive seems to get weaker with higher use. Since the use of the progressive goes down overall as well, an explanation might be that with increased sensitivity to native-like frequencies of this L2 aspect form, there is a greater need to supplement with L1-like constructions.

The use of *sit* mainly refers to the opening scene, where the boy and the dog are watching the frog in a jar, and it is striking that so many of the L2 learners feel the need to point out their posture, when most of the native speakers do not. In most cases, *sit* is followed by just a locative adverbial, in all groups, but the second most frequent combination is *sit* + locative + supplementive, e.g.

He is sitting on the floor looking at a frog. (1260: girl, A2 15)

This combination resembles the Norwegian V+V construction, although the second verb is non-finite, but it is not used in N11 and only twice in A2 15. In group B, on the other hand, it is used 12 times, compared to five times in each of the two native-speaker groups. A direct translation of the V+V construction is rare in this dataset, with only five tokens total, but these are all found in the L2 groups, at all levels, and they are in the progressive except one token at level B. In contrast, the native speakers all have a locative adverbial between *sit* and a second finite verb phrase. From these few tokens we can see that there is a difference in how the L2 and native-speaker groups use *sit* in various constructions, and for once the B-level texts do not group with the native speakers.

Table 5.9.6: Distribution of posture verbs in non-finite contexts, all groups.

	N11		N15		All N	A11		A15		All A	All
Verbs	**ing**	**inf**	**ing**	**inf**		**ing**	**inf**	**ing**	**inf**		**Total**
Sit		1	11	1	13	5		7		12	25
Stand			1	2	3	1				1	4
Lie			4		4						4
lay (lie)						2		1		3	3
Hang			1		1			1		1	2
hang out								1		1	1
Total		**1**	**17**	**3**	**21**	**8**		**10**		**18**	**39**

A look at the distribution in nonfinite contexts, in Table 5.9.6 above, tells us, first, that only one token of verb + particle, *hang out*, is used in these context types, and the semantic interpretation should be atelic, as with the bare verbs. Second, the native-speaker groups use posture verbs exclusively with ING, in contrast to the Norwegian groups, who have some tokens of INF, albeit few. In other words, these verb types are even more closely connected with the bare *-ing* form than with the progressive construction.

5.9.3 Semelfactives and utterances

One group of verbs that is difficult to classify semantically is the one Comrie (1976) terms *semelfactives,* i.e. atelic situations of very short duration, e.g. *bite, sniff, hit*, which may be repeated and thus turn into iterative situations (cf. section 4.1.3). The interpretation of these verbs thus depends on the context; whether or not the event is seen as repeated. Note that the Frog Stories are based on a set of still pictures, so if these situations are to be seen as iterative, and thus compatible with the progressive, that is clearly an interpretation.

Table 5.9.7: Distribution of semelfactives in finite verb contexts, all groups.

	N11		N15		A11		A15		All	% of total
	NON	PROG	NON	PROG	NON	PROG	NON	PROG		
bite	4	4	11		11		13	1	44	17,2
knock					13		25	4	42	16,4
hit			10		8		14		32	12,5
wave	2		10	3	2	2	7		26	10,2
attack	4	2	6	1		1	2	1	17	6,6
lick	3		6	1		1	5		16	6,3
hurt (cause pain)	4	1	1		6		1		13	5,1
hop			1	1	5		6		13	5,1
sniff	2		3	1	3	1	1		11	4,3
sting			2		2				4	1,6
hug		2		2					4	1,6
splash				1	1	1			3	1,2
other[125]	1	1	6	2	7	2	7	1	27	10,5
Total (%)	**20** (66,7)	**10** (33, 3)	**56** (82,4)	**12** (17,6)	**59** (88,1)	**8** (11,9)	**84** (92,3)	**7** (7,7)	**256** (100)	**100,0**

[125] The category "other" refers to semelfactives in the dataset used in two tokens or less: *breathe, attempt, kick, strike, kiss, poke, beat, peck, bump, ring, wiggle, rub, spit, scratch, claw, shake, blow, slap, wipe, brush, snort.*

The presentation here excludes certain verbs that might have been placed in this category, as they are seen as utterances as well and will be treated in separate tables below (e.g. *shout, bark*).

Table 5.9.7 above shows that semelfactives are not much used in the progressive in the native-speaker groups, even in the most frequent of these verbs, and no verb stands out as particularly compatible with PROG. N15 has a somewhat greater tendency to use the progressive in this category, but at 17.6% it is still less than the group's total average for all verb types (21.8%; see section 5.3.1). Only N11 has a high score, but at 33.3% it is also well below the group's total average (41.0%). Each verb type is represented by few tokens, but it is worth noting that N11 has four tokens of *bite* in each aspect form, whereas the other groups use this verb almost consistently in the nonprogressive. All tokens of *bite* refer to the same scene, where the situation is in fact over and the bite can only be inferred because the boy is covering his nose. The use of the progressive therefore seems odd here, as the situation is neither ongoing nor iterative, and not even actually depicted. Examples such as *a animal is bting the boy in the nose* (1128: girl N11) thus seem to indicate that the choice of verb form is based on something other than the actual situation depicted, quite possibly the semantic content of the verb itself. The appropriate verb form here would be the perfect aspect, *has bitten*, which has a clear counterpart in Norwegian, both formally and functionally; *har bitt*. It is impossible to know why the perfect was not chosen instead, but it is likely that the irregular verb form has not been learned at this stage; it may thus be a case of avoidance.

Table 5.9.8: Distribution of semelfactives in non-finite constructions, all groups.

	N11		N15		A11		A15		All
verb	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**Total**
attack			8	1		1		4	8
lick				1	1	1	1	1	5
wave			1		3		1		5
hit					1	2		1	4
hop			1				1	1	3
shake				2				1	3
sting		2				1			3
other			4	1	1	1	4	2	13
Total		**2**	**13**	**5**	**6**	**6**	**7**	**10**	**44**

In non-finite contexts, on the other hand (Table 5.9.8 above), these verb types are as likely to be used with ING as with INF – except in N11, where we only find two tokens of *sting*,

both in the base form. N15 uses ING more than INF, mainly because of the verb *attack*, which the native speakers prefer with INF. Otherwise, the two forms are used quite equally. The tokens of each type are too few to draw any conclusions, but it seems that the use of semelfactives might be worth exploring further on a larger scale.

Table 5.9.9: Distribution of utterance verbs in finite verb contexts, all groups.

	A1		A2 11		A2 15		B		A11		A15		Total
	prog	**non**	**prog**	**non**	**prog**	**non**	**prog**	**non**	**prog**	**non**	**prog**	**non**	
say		4	4	33	3	7	3	12	4	18	1	16	107
yell			10	3	4	4		3	6	18	7	23	81
call	1		3	3	1		3	12	11	16	3	17	70
scream		3	12	2	11	5	4	9		3	1		51
shout		4	14	14		1	4	5		2	1	3	48
tell				1	1	1	1	9	5	7	3	17	45
bark			1		1		4	2	3	1	3	5	20
ask						1		4				3	8
talk			1					2		1	2		6
howl		1							3		1		5
answer				1		1		2		1			5
holler									2	1		1	4
whisper					1	1				1		1	4
laugh			1						1			2	4
hoot				2								1	3
yelp										2		1	3
thank										3			3
hush										3			3
other			2				2	1		6	2	3	16
Total	**1**	**12**	**48**	**59**	**22**	**21**	**21**	**61**	**35**	**83**	**24**	**93**	**486**
%	7,7	92,3	44,9	55,1	51,2	48,8	25,6	74,4	29,7	70,3	20,5	79,5	

Next we turn to what I collectively choose to call 'utterances', here defined as any sound that is emitted orally, either from a human or an animal. These have much in common with semelfactives: the interpretation of either category depends on the duration of the situation and/or whether or not it is repeated. They are grouped together here because they can shed light on the claim that referential salience is an important factor in the use of the progressive, as utterances pertain to audible rather than visual perception: if salience in the *signifié* is associated with the progressive, then verbs that denote sound emissions should also have this kind of salience and lead to use of PROG, particularly if there is also an agentive subject. Arguably, there is a strong visual component to such situations in this particular dataset, as all interpretations are based on the picture set in *Frog, where are you?,* and in general utterances

also involve mouth movement, a visible feature. Still, these verbs mainly refer to the production of sound and thus appeal to our auditory capacity.

Table 5.9.9 above presents an overview of the distribution of progressive and nonprogressive aspect in these verbs; proficiency level is included here, as there is a clear difference between the usage in these groups as regards the PROGRESSIVE variable. The first thing to notice is that group A1 only has one token in the progressive (*he gowd on the stown end* ***koling*** *four help*: 1095), which incidentally is coordinated with a telic verb phrase marked for past tense. The picture in this scene shows the boy already on the rock, but in the process of calling; the distinction between past and progressive is therefore contextually appropriate. The total number of tokens in this group is only 13, but it is enough to reveal a clear difference between A1 and A2 11 in the verbs *scream* and *shout,* where the latter group has a preference for the progressive with *scream* – reported to be used more than 50% of the time with the progressive in Biber et al. – and uses both forms equally with *shout.* In total, both age groups at the A2 level use PROG with utterance verbs around 50% of the time; a ratio that would be even higher in the youngest group if we disregarded the 37 tokens of *say*, 33 of which are in the nonprogressive. All groups except A1 have a few tokens of this verb in the progressive, but it is mainly found in the nonprogressive. Along with *ask* and *answer*, which are not used with PROG at all, *say* is perhaps the most telic of the verbs on the list[126], with the last syllable of the utterance as a clear end point. Yet it occurs frequently in the progressive according to Biber et al. particularly in the past tense, albeit less often than other communication acts, as they call them, notably *scream* and *talk* (1999: 472),.

Less telic *talk* and *tell* are used in the progressive, unlike *ask* and *answer*, so telicity seems to be a more plausible distinguishing factor in this semantic group than the fact that these two, along with *say*, refer to language utterances, unlike the many other sounds described. In general, however, utterance verbs seem to have a semantic profile that is quite compatible with the progressive, particularly at the A2 level. A few of these, such as *bark*, may also be grouped with the semelfactives, but we have already seen that the non-utterance semelfactives are not particularly frequently used in the progressive, so the distinction seems fruitful.

At the B level and in the native-speaker groups we see both a greater variety of utterance verbs and less use of the progressive, which is in keeping with the general trend in these three groups. However, A11 uses this construction a bit more than A15, which might be an indication that auditory salience is more important for the choice of grammatical aspect in younger native

[126] Rated as highly telic by native speakers in Wulf et al. (2009: 364).

speakers as well. This should be explored in a larger sample of the population, as well as in younger native-speaker groups.

Table 5.9.10: Distribution of utterance verbs in non-finite contexts, all groups.

	A2		B		A11		A15		All
verb	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**Total**
yell	1	1	4		8	2	17	7	40
call	1	1		7	6	5	11	3	34
bark	1		4		10	1	5		21
tell		1	1		4	1	1	2	10
shout	1		3	2					6
say			1		3			1	5
cry			2		1			1	4
howl					1		1		2
sing			1				1		2
other	1			1	1	2	4	1	10
Total	**5**	**3**	**16**	**10**	**34**	**11**	**40**	**15**	**134**
%	62,5	37,5	61,5	38,5	75,6	24,4	72,7	27,3	

Turning to non-finite contexts, we learn from Table 5.9.10 above that utterance verbs are generally preferred with ING. The table only gives proficiency levels for the Norwegians, as N11 only produced two tokens – *quack* and *shout* – both in ING, and because there is no noticeable difference between age groups at the A2 level. As can be seen from the table, there is hardly any difference between levels A2 and B either, as both groups use ING with a little over 60% of the tokens; the only discernible difference is between Norwegian learners on the one hand and native speakers on the other. The latter prefer ING around 75% of the time.

Although it is hard to glean a pattern from such small numbers, we may at least examine the three most frequent words in these constructions, *yell, call* and *bark*. While the groups seem to agree that *yell* and *bark* are compatible with ING, group B stands out in using *call* only in INF. This difference is hard to explain, as all groups mostly use it in some variant form of 'call for the frog'.

To sum up, utterance verbs lend themselves readily to use in the progressive and even more so in ING. The informant groups differ in their usage, however, as the use of PROG with these verbs is most prominent in group A2, and group B displays similar patterns as the native speakers – as usual. When it comes to ING, on the other hand, group B does not follow the native speakers' lead, but uses this form less than the latter. Semelfactives are also used in the progressive, but less than expected and less than utterances. The short duration of semelfactives

might not give them the salience needed to make the progressive the preferred option, while utterance verbs – semelfactive or not – have enough auditory salience to capture learners' attention to a greater extent. As with most verbs in this dataset, however, the frequency of the progressive goes down with both age and proficiency.

5.9.4 Movement to or from an end point

The next category consists of verbs that are followed by either an adverbial particle, as in *go out,* or by other constructions denoting direction or movement to or from an end point; these are mainly adverbials realized by a prepositional phrase – e.g. *into the forest* – but also noun phrases that fill the same function, as in e.g. *go* ***home***. The rare cases of metaphorical use are also counted in, e.g. *take it* ***out*** *on him*, as they have the same form as the concrete meanings. Not included in the category are structurally similar adverbials that denote location, purpose or manner, or constructions that denote continuation rather than direction, as in *went* ***on*** *doing his business* (1407: girl, A11) or *go* ***with*** *them* (1438: girl, N15).

There are two reasons for examining this category. The first one is Dowty's (1979: 71) claim that verb-particle constructions function as accomplishments in English (cf. section 4.8.2.2). They should therefore be moderately compatible with the progressive, as accomplishments are the second category to be used in this construction, according to the Aspect Hypothesis, while they are at the same time telic and often of short duration – two traits that do not align well with the progressive. The short duration also makes it hard to distinguish them from achievements. The second reason for looking at verb + end point constructions is that several studies by Christiane von Stutterheim and colleagues (e.g. Stutterheim 2003, Stutterheim and Carroll 2006, Schmiedtová, Stutterheim, and Carroll 2011) show how speakers of languages with an imperfective aspect – notably English – tend to focus on an ongoing phase of a situation, whereas speakers of languages without a grammatically coded imperfective aspect – notably German – tend to see situations holistically and mention end points explicitly as an expression of this view. One of these studies, Stutterheim and Carroll (2006), includes Norwegian informants and shows that they group with Germans in their strong tendency to explicitly mention end points, even when these are not a given, but have to be inferred from the context. Their study of L1 German speakers of L2 English and L1 English speakers of L2 German shows that even very advanced learners carry these patterns over to their second language. The category is thus expanded from just verb-particle phrases to a broader selection of end points (e.g. *into the forest*) in the VP's immediate context (adjuncts), to see how compatible these bounded, holistic situations are with the progressive in learner language.

Table 5.9.11: Movement to or from an end point in finite contexts, all groups.

	N11		N15		A11		A15		All
Verbs	**Non**	**prog**	**non**	**prog**	**non**	**prog**	**non**	**prog**	**Total**
fall (dir[127])	69	38	91	14	59	5	60	7	343
wake up	34	2	62		42		58	6	204
go (dir)	45	11	36	9	49	4	29	1	184
come (dir)	37	16	40	5	29	2	40	5	174
jump (dir)	19	25	35	7	30	4	27	5	152
climb (dir)	24	24	39	7	20	2	28	6	150
run (dir)	18	16	34	17	20	4	26	5	140
get (dir)	6	1	29	5	46	4	25	4	120
take (dir)	17	4	23	1	11		13	3	72
fly (dir)	6	13	11	7	9	2	22	1	71
put (dir)	5		6	1	10	2	19	1	44
knock (dir)					12		24	4	40
pop (dir)			1		12		24		37
pick up	1		4		9		15	4	33
throw (dir)	2		8	1	10		6		27
walk (dir)	1		11	3	4	3	4		26
sneak (dir)	3		3	1	3	2	9	1	22
crawl (dir)	2	1	5	2	4		4	1	19
chase (dir)				2	3	3	6	3	17
stick (dir)			3		2	1	8		14
turn (dir)		1	3		3		4		11
swim (dir)	1		2		4		2		9
push (dir)	1		3		4		1		9
sit up			1		3		4		8
head (dir)				1	2		5		8
leap (dir)					2		4		6
lift (dir)	2				2		2		6
swoop (dir)					3		1	1	5
fling (dir)						1	3		4
creep (dir)					1	1	2		4
bring (dir)			1		1		2		4
sit down			3		1				4
stand up			2		1		1		4
give up					3		1		4
other	4		8		18	1	30	2	64
Total	**297**	**152**	**464**	**83**	**433**	**41**	**509**	**60**	**2039**
%	65,6 %	34,4 %	84,8 %	15,2 %	91,4 %	8,6 %	89,4 %	10,6 %	

[127] Verbs followed by (dir) indicate all expressions of direction with these verbs, unlike the few that are only found with one type of particle.

This section also includes the same verbs in contexts where no mention of end points is given, to see whether there is a difference in the use of the progressive.

As seen from Table 5.9.11 above, this is a very large category. It also includes some of the verbs already examined in section 5.9.1 on high-frequent verbs, with the difference that it is specified here that an end point is explicitly mentioned. These verbs are mainly used in the nonprogressive, except in the youngest Norwegian group. In other words, boundedness does not seem to be enough to keep these youngest L2 learners from using the progressive, while the native speakers limit their use more clearly.

It is also interesting to observe that there are a few quite frequent verbs that only A15 use in the progressive and not A11. These are *wake up*, which we have already seen in section 5.9.1, *take, knock* and *pick up*. All of these are usually interpreted as quite punctual without the end point marker and one might raise the question of whether an awareness of the implication of boundedness for grammatical choices develops late in native speakers as well. On the other hand, we should not forget that a simpler explanation may be that A11 tends to use the past tense more than A15 and may use the progressive less for that reason.

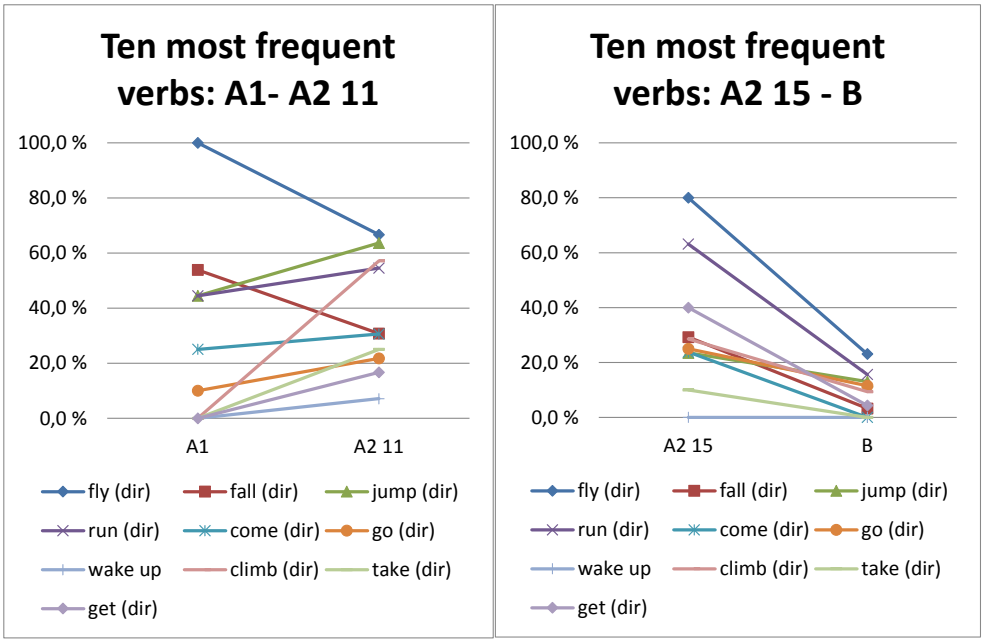

Figure 5.9.5 a) and b): The ten most frequent end-point constructions, L2 groups.

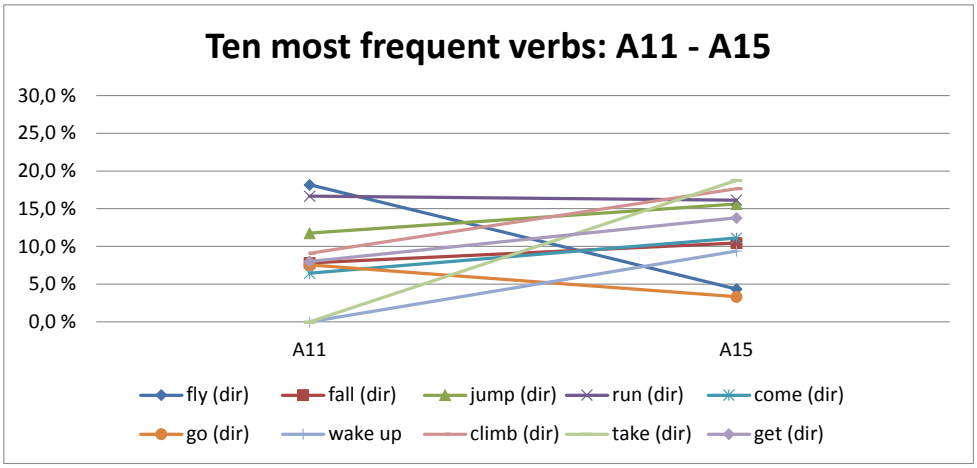

Figure 5.9.6: The ten most frequent end-point constructions, L1 groups.

The line charts above give an overview of the use of the ten most frequent verbs in this category in percentages. The first two line charts, Figure 5.9.5 a) and b), compare proficiency levels within each of the L2 age groups, while Figure 5.9.6 tracks the development across age in the native speakers.

Again, group A1 shows little apparent reason for their choice of grammatical aspect, in light of the Aspect Hypothesis, at least. All the verb phrases in these charts have an explicit end point in their context and are therefore telic, so telicity in the verb's context is obviously not a factor. On one end of the scale, *fly* is used exclusively in the progressive, with high frequencies of *fall, jump* and *run* as well. On the other end, we find *climb, take, get* and *wake up* with no tokens in the progressive, and *come* and *go* somewhere between the extremes, but closer to the Ø-token verbs. It could be argued that *fly, fall, jump* and *run* have more referential salience than the others, as they have both physical extension and a clear focus on manner in the verb (see section 4.8.3), which gives the situation more referential salience. Slobin (2004: 250 ff.) discusses the difference between high-manner-salient and low-manner-salient languages in relation to Talmy's (e.g. 2000) distinction between verb-framed and satellite-framed languages, where the latter emphasize manner in the lexical verb and express path through "a non-verbal element associated with a verb" (Slobin 2004: 249). With the exception of *climb*, manner is less prominent in the verbs with little or no use in the progressive in group A1.

In A2 11, *climb* is in fact added to the high-frequency verbs, while the use of *fly* goes down quite a bit. Most of the other verbs are more frequent in the progressive in this group than in A1; the only exception is *fall,* which drops from more than 50% to a little over 30% of all

tokens, but is still more frequent than both telicity and duration would indicate. Overall, however, relative frequencies are in almost the same order as in A1, and reflect the same manner-salience. Both English and Norwegian are satellite-framed languages, so this may be an example of positive transfer in the use of verb types, if not the progressive.

In A2 15, *fly* and *run* are still very frequent in the progressive, but *jump* is used much less and *get* quite a bit more than in A2 11, though in the latter case the numbers are so small that this is likely to be random. In the other verbs, the frequencies are mostly lower or remain almost the same, but the order is much the same as in A2 11. These results indicate that referential salience and telicity may now compete for the learners' attention, since the most manner-salient verbs are used frequently with PROG, but the other telic VPs have lower frequencies as well as shorter extension, both temporal and spatial. The most noticeable change is from A2 15 to B, as we have come to expect by now. Yet, though the use of the progressive goes down in all of these verbs, the order is quite like the other groups, with *fly* and *run* as the most frequent ones, followed by *jump, go* and *climb*. This group also follows the manner-salient pattern, with inherently telic *fall* as a striking exception; only two of 59 tokens are in the progressive.

The same manner-salient pattern is also found in the youngest native-speaker group, although the differences in frequencies are rather small. Two verbs, *fly* and *run*, stand out as the most frequent in this group as well, and the very telic *wake up* and *take* are not used in the progressive at all. The situation is quite different in A15, on the other hand, where *fly* and *go* have the lowest frequencies; all the other verbs are used more than in A11. The pattern in A15 is less clear than in the other groups, but it seems that manner-salience is less important than telicity.

Some of the verbs presented above are used without telic contexts and a look at these counterparts may shed light on the role of telicity in the use of such verbs with the progressive. Only eight of them have a frequency that lends itself to comparison to any extent, seven of which are also among the most frequent in telic contexts. These seven are listed in Table 5.9.12 below, along with *chase,* which is much more frequent without telic contexts, as well as *fly* and *jump*; the latter two are rarely found without an explicitly mentioned end point, but are included nonetheless since they feature prominently in the analysis above. With *get* as a notable exception, these verbs are all more frequently used with end points than without, and the proportions are quite similar in all groups (between 71% and 79% with end points). This differs from Stutterheim and Carroll's (2006) study, where there was a great difference between

Norwegian and English informants, albeit in their respective native languages and under different elicitation conditions.

Table 5.9.12: The most frequent verbs without end-point contexts, all groups.

	A1		A2 11		A2 15		B		A11		A15		Total
Verb	**non**	**prog**	**non**	**Prog**	**non**	**prog**	**non**	**prog**	**non**	**prog**	**non**	**prog**	
get	2		8	1	16	4	63	4	41	8	48	6	201
go		1	4	1	4	1	16	3	25	3	30	4	92
run		5	5	13	5	3	14	5	2		5	5	62
chase					1	1	4	4	6	17	8	15	56
come	2	2	6	9	5	1	8	1	4	1	11		50
take	4	2	14	3	4		8	1	5	2	3	1	47
fall	2	1	2	4	1	1	2	1	15		10		39
climb							4		11	5	16	1	37
fly				1					3	1	2		7
jump			1	1		1		1					4
Total	**10**	**11**	**40**	**33**	**36**	**12**	**119**	**20**	**112**	**37**	**133**	**32**	**595**
%	47,6	52,4	54,8	45,2	75,0	25,0	85,6	14,4	75,2	24,8	80,6	19,4	

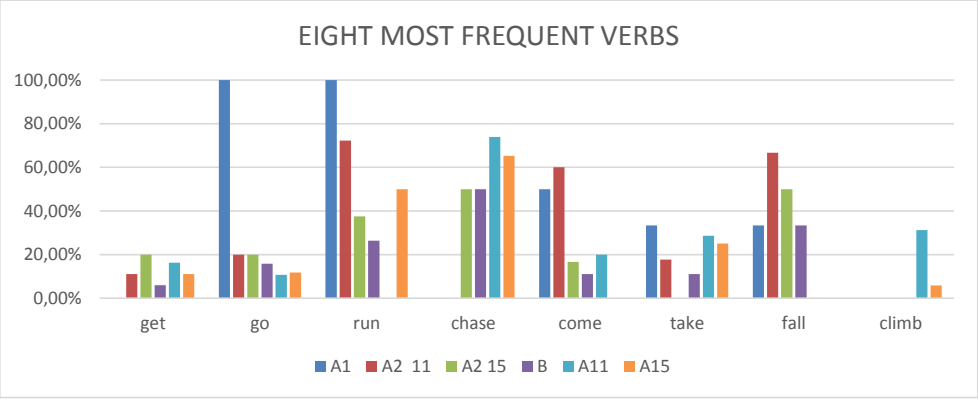

Figure 5.9.7: Frequency of PROG in the eight most frequent verbs without end-point contexts.

The table above shows a tendency for all groups to use the progressive more than in telic contexts, but the difference is not striking and the numbers too small to do more than point to a possible trend that may be explored further. The proportions are represented visually in Figure 5.9.7 above, which should be interpreted with extreme caution, as such small numbers may yield larger discrepancies than the material really gives ground for. Nonetheless, it can be useful to compare each of these verbs to their use in telic contexts. First we find that *run* is used only in the progressive in group A1, and the proportion is relatively high in the other

Norwegian groups as well. A11 has only two tokens, both in the nonprogressive, but half of the tokens in A15 are in the progressive. Only A2 15 and A11 use this verb in the progressive less than in telic contexts. Next we turn to *go*, which all groups use in the progressive, and at a quite similar rate (A1's single token yields a somewhat misleading 100%) as in telic contexts. In the case of *come,* A2 11 clearly uses the progressive more than when the end point is specified; the others have too few tokens to give grounds for interpretation. Another verb that is hard to interpret is *take*, which no group uses to any great extent, although only A2 15 does not have any tokens in the progressive. When it comes to *fall,* on the other hand, all the Norwegian groups have only a few tokens, and at least one in the progressive (4 of 6 in A2 11), but the native-speaker groups both have more tokens than the others and no occurrences in the progressive. With end points, these groups had a frequency of around 10%; these results may point to an inherent telicity in this verb, which may be overruled when the context explicitly points out the physical extension of the event. The last verb that is used in all groups is *get*, which in these cases is followed by either a noun phrase, an adjective phrase or a past participle (mostly used adjectivally). There are no noteworthy differences in use with this verb.

Finally, two verbs are only used by the oldest Norwegians and the native speakers; *chase* and *climb*. The former is very frequent in the progressive in all these groups, and dominant in the native speakers; *climb*, on the other hand, is much less frequent and only A11 use it in the progressive to any extent.

In sum, the differences between verbs used with or without end-point contexts are not great and it is easier to detect a pattern in usage when these contexts are provided, not least because there are more tokens with such context than without. However, it is worth noting that all groups seem to *prefer* to provide such contexts, giving each event a global, sequential perspective, since the frequencies of these verbs are higher with explicit end points than without. This means that lack of telicity is not the main reason young Norwegian learners overuse the progressive, with the verbs presented here, at least.

Before leaving this topic, I will look briefly at how verbs with end-point contexts behave in non-finite constructions. Table 5.9.13 below gives an overview of these verbs for all groups, but proficiency levels are not provided, as tokens are mainly found at the B level in the L2 groups. Here we find that the few tokens used in N11 are all in INF, while the other three groups all use ING in around 35-40% of the tokens; in other words much more frequently than with the progressive. There is, however, a difference in which verbs are clearly preferred with ING. N15 use this variant with *fly*, which was also the most frequent verb in the progressive, followed

by *fall* and possibly *climb* and *come*, though these have very few tokens. All of these have physical extension and all except *come* have manner salience.

Table 5.9.13: Movement to or from an end point in non-finite contexts, all groups.

	N11		N15		A11		A15		All
Verbs	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**Total**
get (dir)		1		18	2	16	1	9	47
fall (dir)			4	7	5	4	1	3	24
climb (dir)			3	2	4	3	1	7	20
jump (dir)				5	8	2	2	1	18
run (dir)		1	2	1	2	3	8	1	18
come (dir)			3	2	1	6	2	4	18
fly (dir)			9	1	2	1	2	1	16
go (dir)				4	1	6		4	15
take (dir)		1	1	6		2		4	14
pick up		1		2	2	4			9
chase (dir)			1	1	2		3	1	8
knock (dir)						2	4	2	8
walk (dir)			2	1	1	2	1		7
throw (dir)			1		1			1	3
other			3	1	2	2	3	5	16
Total	**0**	**4**	**29**	**51**	**33**	**53**	**28**	**43**	**241**
%	0,0	100,0	35,7	64,3	39,8	60,2	39,7	60,3	

A11 uses ING most with *jump*, which is only found in the base form in N11, but these two groups seem to agree on *fall* and *climb*, though not *come*, which is mainly in INF in A11. Finally, A15 uses ING with *run*, which is less used overall in the other two groups, and with *chase* and *knock*, as in *a hoot owl flew out* ***knocking*** *Max too the ground* (1342: girl, A15). Again, there is clear manner salience in these verbs, and the physical extension is more salient than the temporal one in *jump, fall, come* and *knock.* Verbs on this list with low manner salience, *get, take* and *pick up*, are little used with ING. The same general pattern is thus found with the progressive and ING.

Table 5.9.14: The most frequent verbs without end-point contexts in non-finite constructions, all groups.

	N11		N15		A11		A15		Total
Verbs	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	
get		3		5	2	14		8	32
run	1	2	6	3	8	1	7	2	30
go				4	2	8		11	25
chase	1			2	6	5	8		22
take		2		2	2		3	2	11
Total	**2**	**7**	**6**	**16**	**20**	**28**	**18**	**23**	120

Finally, Table 5.9.14 above shows the five verbs with more than ten tokens total that are found without end-point contexts. Again, the clearest difference is between verbs with high and low manner-salience; *run* and *chase* with ING on the one hand and *get, go* and *take* with INF on the other. There are some exceptions, such as A11 using ING with some tokens of all these verbs and N15 using *chase* only in the base form, but where the number of tokens is relatively high, this difference in salience seems to be the general pattern.

5.9.5 Physical perception verbs

Physical perception verbs are, as the term indicates, a category that consists of verbs that in some way describe sensory impression, such as *see, hear, feel, listen, smell, taste, watch, observe, notice,* etc. These verbs focus on the perception itself, rather than the perceived element given in the complement and this analysis thus approaches the idea of referential salience from a different angle. Dowty (1979: 66) gives *see, hear, smell, taste, feel* and *perceive* as examples of perception verbs and lists these under the heading 'states/statives', but informs us in parentheses that all of these are achievements as well. On the next page, he classifies *listen to, watch, taste, feel* and *smell* as physical perception verbs that are activities, but again he plays it safe by claiming in parentheses that "the last three are also states and achievements" (ibid.: 67). Clearly, then, the interpretation of these verbs is context dependent and cause for disagreement in lexical aspect classification (cf. the beginning of section 5.9), which is another reason to include this category in the analysis.

This is a large category in the present material, with a total of 1074[128] tokens, dominated by the verbs *look* and *see*, followed by *hear, notice* and *watch*. Table 5.9.15 below gives each group's tokens of the individual verbs in the progressive and nonprogressive. The verbs are listed in descending order of frequency.

[128] Excluding tokens produced by the 11-year-old at level B1 and the 15-year-old at level A1.

Table 5.9.15: Physical perception verbs in finite contexts, all groups.

	A1		A2 11		A2 15		B		A11		A15		Total
Verb	NON	PROG	NON	PROG	NON	PROG	NON	PROG	NON	PROG	NON	PROG	
look	8	16	47	79	15	27	47	9	125	56	79	36	544
see	9		44	3	26		38		178	1	40	1	340
hear	1		9	1	5	1	14		13		17		61
notice	1				4		8		4		15		32
watch					1	6	1	5	1	3	4	4	25
seem					4		8		2		3		17
show					1		9						10
smell							1		3	4	1		9
feel					1		1		1		3	1	7
listen			1	2					1		1		5
stare						1		1	1			1	4
peek							1				3		4
spot									2		1		3
hurt (suffer)							2				1		3
peer									1		2		3
other					1	1	1	1	1	1	1		7
Total	**19**	**16**	**101**	**85**	**58**	**36**	**131**	**16**	**333**	**65**	**171**	**43**	**1074**

We see that the category is dominated by the verbs *look* and *see*, denoting visual perception, followed by less frequent *hear, notice, watch* and *seem*, which involve the use of various senses. The rest of the verbs are represented by 10 tokens or less each and are therefore hard to generalize from. We learn from this overview, however, that the youngest Norwegians only use five different verb types, while the others have a more varied vocabulary. Of the types that have few tokens, the ones found in the progressive at all are *listen* (A2 11), *stare* (A2 15, B, A15), *smell* (A11) and *feel* (A15); where the latter is the only one that is not clearly agentive, or controlled by the subject. Among the verbs that only have one token, agentive *observe, admire* and *spy on* are also in the progressive, while *peep, recognize, reek* and *touch* are not.

The column chart in Figure 5.9.8 below shows the proportion of PROG in the six most frequent perception verbs in the dataset. There is a clear distinction between the agentive verbs *look* and *watch* on the one hand and the non-agentive *see* on the other, in all groups: the former two are frequently used in the progressive, while there are only a few tokens of the former in this construction. The distinction corresponds to the frequencies reported in Biber et al., where *look* and *watch,* along with *feel, stare* and *listen,* are found to be fairly frequent, while *see*, as well as *hear, perceive, detect* occur with the progressive less than 2% of the time (1999: 472).

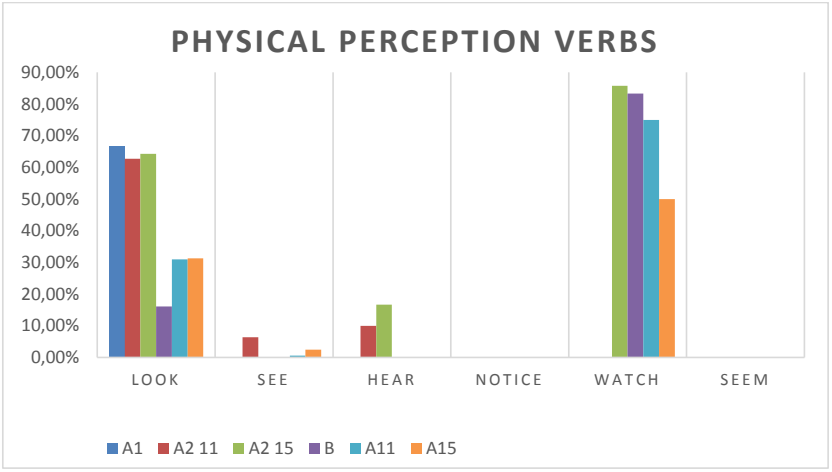

Figure 5.9.8: The six most frequent perception verbs, all groups.

Look, watch and *see* all describe visual perception, and according to native-speaker telicity ratings, none of these is particularly telic and *watch* is the least telic of the three, followed by *see*, slightly before *look*. Telicity therefore does not seem to be the most distinguishing factor in this category, but agentivity means that the situation may be interrupted at will and therefore supports both Williams' (2002) idea of susceptibility to change and Langacker's (2001) notion of perfectivizing the imperfective. On the other hand, *watch* – which is not used in N11 at all – is seen as less telic than *look*, and is used with more relative frequency in the progressive than the latter.

Auditory perception is not nearly as well represented, but in the present material we find that only the Norwegian groups use these verbs in PROG, with two tokens of *listen* and two of *hear*. It is tempting to point to agentivity in this case as well, since *hear* is represented by many more tokens in the nonprogressive than *listen,* but more data is needed to make a strong case for this interpretation.

The verbs that denote more general perception, *seem* and *notice*, are not used in the progressive at all. One is a prototypical state (Housen 2002b: 166) and the other a much-used example of an achievement. Both are thus incompatible with the progressive, but one is telic and the other is not. Along with agentitivity, the physical perception verbs that are used in the progressive in this dataset all have high manner salience, even stative verbs like *hear, see* and *feel*, as they evoke the particular physical sense that is employed in the perception. Referential salience thus seems to play a role in the use of the progressive in this category as well,

particularly in the least proficient learner groups. The learners' first language, on the other hand, seems to have little impact in this regard; any potential L1 effect is seen in the frequency of progressives with a particular type of verb, rather than in which particular verbs favour the progressive.

Table 5.9.16: Physical perception verbs in non-finite contexts, all groups.

Nor	A2 11		A2 15		B		A11		A15		Total
verb	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	
look	2	3	5	8	26	9	48	14	21	26	162
see		4		4		14		14	2	28	65
watch					8	1	2		2		13
smell					1	3				2	6
feel					2		1			1	4
stare					1		1	1		1	4
hear					1			1	2		3
sniff					1		1		1	1	5
Total	**2**	**7**	**5**	**12**	**40**	**27**	**53**	**30**	**28**	**59**	**263**

In non-finite contexts, the pattern is somewhat different, as seen from Table 5.9.16 above. The table distinguishes between proficiency levels in the Norwegian groups, as the difference between levels A2 and B is greater than between age groups. The two groups at the A2 level only use *look* and *see*, but only the former is used with ING, and less so than with INF. By contrast, learners at the B level clearly prefer ING with *look,* as do A11, with almost four times as many tokens as in INF. Neither of these groups uses ING with *see*, a pairing which is in fact found in A15, as in *Seeing a log he crept on it slowly* (1290: boy, A15). A15 is also less inclined to use ING with *look*; in this group the distribution between the two forms is almost even.

When it comes to the less frequent verbs, we see that group B uses all of them with ING, even *hear*, and only two with INF; *watch* and *smell*. A11 also prefers ING, but *hear* is in INF, along with one token of *stare*. A15 is the odd one out here as well, with a general preference for INF – except with *hear*. A pattern that involves manner salience is not possible to detect in the non-finite constructions; the only clear distinction is between agentive *look* and *watch* on the one hand, and non-agentive *see* on the other, as was the case in finite contexts as well.

5.9.6 Aspectual verbs and their complements

As we saw in section 5.8.3, the most used ING construction in group N11 is nominals, specifically complement of *aspectual verbs*, i.e. "verbs of beginning, continuing and ending" (Quirk et al. 1985: 1192). The other groups use this construction frequently as well and it is worth taking a look at how these verbs are used in the present dataset, as they have much in common with the progressive. While the progressive simply indicates that the situation is in progress, without further specification, aspectual verbs bring a certain part of the process to our attention; the beginning, the end, or some part between these two. According to Mair (2012: 812), these verb types may be interpreted "aspectual semi-auxiliaries" when coupled with V-*ing*. Similarly, Biber et al. note that "[t]he verb *keep* functions as a kind of progressive marker" (1999: 746). In other words, there is good reason to consider these constructions quite progressive-like.

Three verbs that denote beginning and continuing (*start, begin, continue*) may take either an infinitive or *-ing* as complement, with only subtle differences in meaning, whereas *keep* and *end up* can only take an *-ing* complement, and the two forms have different meanings with *stop*. With the infinitive it means 'stop in order to' and with *-ing* it means 'stop the process'.

Table 5.9.17: Distribution of aspectual verbs in finite contexts, all groups.

	N11		N15		A11		A15		All
verb	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**Total**
start	6	1	61	3	29		63		163
stop	14	1	17	3	12		20		67
keep			6		10		7		23
continue	1		13	1	1		6		22
begin	1	1	2		2		9		15
end up			2		1				3
Total	**22**	**3**	**101**	**7**	**55**	**0**	**105**	**0**	**293**

Table 5.9.17 above gives the distribution of these verbs in the progressive and nonprogressive according to age and nationality. Note that they are hardly used in the progressive and only by the Norwegian groups. The most frequent ones are *start* and *stop*, which are also the ones with the most progressive tokens. However, all tokens of progressive *start* are followed by a *to*-infinitive, while *stop* is only used intransitively, i.e. 'come to a halt'.

This difference in usage is also seen in Table 5.9.18 below, which presents the distribution of complement types with these verbs: there are only four tokens of *stop* +

complement, all of them found in the L2 learner groups. In the case of *start*, on the other hand, 158 of 163 tokens have a non-finite clause as complement. The other verbs have few tokens in the first place and even fewer with complements, but we see that *begin* is used with the infinitive except one token in N11, *continue* is used with both forms, and *keep* with ING in all cases, as required grammatically.

Table 5.9.18: Complement types with aspectual verbs, all groups[129].

	N11		A2 15		B		A11		A15		Total
Verb	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	
start	3	4		8	35	19	14	15	39	21	158
keep			1		2		9		4		16
begin	1	1		1				2		9	14
continue	1				2	4		1	1	1	10
stop	1	1	1		1						4
end up					1						1
Total	**4**	**3**	**2**	**9**	**40**	**24**	**23**	**18**	**44**	**31**	**203**

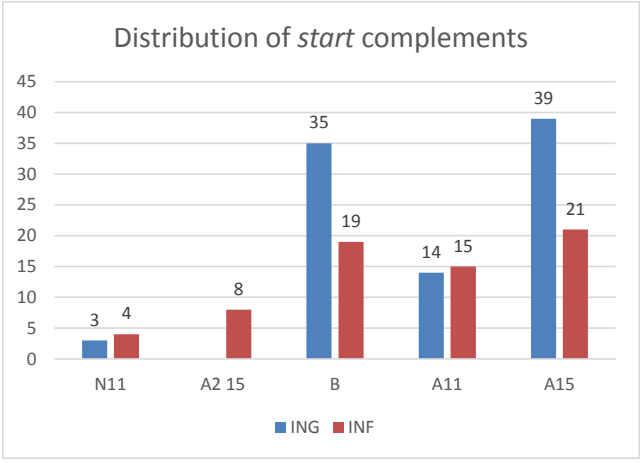

Figure 5.9.9: Distribution of complements with *start*, all groups.

Only *start* is frequent enough to give us an idea of whether the learners distinguish between the use of *-ing* versus infinitive, and this is presented in raw numbers in Figure 5.9.9 below. As noted several times before, there are few tokens of ING before the B level, but we

[129] Proficiency levels are only given at age 15, as there are too few tokens to make this distinction in N11.

still see that N11 uses the two forms equally, whereas A2 15 consistently uses the infinitive, which corresponds to the equivalent Norwegian construction. In A11 the two forms are equally frequent, but in B and A15 the preference for ING with *start* is quite clear.

The verb types that are used as complement are numerous and mostly represented by only one token each, which makes it difficult to make out any semantic pattern in the distribution of complement forms, particularly within each group, but the most frequent types (between 6 and 21 tokens each) may still shed some light on the matter. These are, in descending order of frequency, *run, look, chase, yell, scream, call, climb*; of these, *climb* is the only one that is mainly used in the infinitive. The others are either in ING or distributed equally, and there is little difference between the groups. All of these typically have extension in time, which would otherwise be incompatible with the main verb *start*, and this seems to be the case with most of the less frequent types as well. One notable exception is informant 1460's (boy, N15) […] *the bees started* ***to spot*** *their enemy*, where the plural subject allows for construed extension. But overall, it seems that the meaning of the forms themselves is more important than the meaning of the actual verb types when it comes to choosing the complement of *start*.

5.9.7 State progressives and lexical BE

So far in the present analysis, we have noted several times that states are not frequently used in the progressive, but this combination does occur, contrary to the predictions of the Aspect Hypothesis. Unlike the version of the hypothesis I rely on in the present work (Shirai and Andersen 1995: 745, cf. section 4.4.2), Housen (2002b: 165) restricts the claim that learners do not incorrectly overextend the progressive to states, to only apply to prototypical ones such as *know, seem, want*. In his version, the progressive does extend to 'marginal states' such as *stay, wonder, hang from* – mainly the kind that a human subject may actively control. This section explores whether the states used in the progressive are in fact 'marginal' or 'prototypical'. We have already seen that posture verbs, particularly *sit*, are even more compatible with this form than most activities, although many – including myself – will claim that they are in fact states (e.g. Dowty (1979), Housen (2002b); see section 3.4.2.1). Table 5.9.19 below gives an overview of the distribution of verbs that have been classified as states in the present dataset[130], due to contextual cues, and that have at least one occurrence in the progressive. State verb types that are consistently used in the nonprogressive are left out.

[130] Note that some verb types that are often seen as states have sometimes been classified as ACT or ACH in context. Examples of such types are *hear* and *see*.

Table 5.9.19: Overview of states used in the progressive, all groups

	N11		N15		A11		A15		Total
Verbs	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	**NON**	**PROG**	
have	31		29	3	37	4	40	2	146
look	4	3	17	1	33	2	1		61
like	4	1	5		8		3		21
live		1	6		6		3	1	17
feel			2		1		3	1	7
wonder				1	1		2	2	6
smell	1		1		3	1			6
work			1		2		1	1	5
shine			3	2					5
understand				1	1		1		3
assume							1	1	2
stick out						1			1
wear				1					1
Total	**40**	**5**	**64**	**9**	**92**	**8**	**55**	**8**	**281**

The first thing we find is that *have* is the most frequent one of these, and while it is not used in the progressive in N11, all the other groups have a few tokens. A look behind the numbers reveals that only learners at the B level use this form, and unlike the tokens in the native-speaker groups, the context is not all about having fun or a good or hard time, which is quite acceptable in the progressive. Two of the tokens are in the following contexts:

The boy ***is having*** *a frog in a box on the floor.* (1266: boy, N15)
the dog ***is*** *still* ***having*** *the glass on his head.* (1270: girl, N15)

These are prototypical stative meanings, and although they are found in the most proficient of the L2-learner groups, rather than at the lowest level, these findings contradict even the strictest interpretation of AH.

The next verb on the list is *look*, which has stative meaning when it is combined with an adjective to denote appearance. Examples include

The boy and the dog ***are loking*** *suprais* (1134: boy N11)
The boy ***is looking*** *confused.* (1261: girl N15)

These are also found in the American groups and represent acceptable usage. However, there is also one token where the intended meaning seems to be 'cannot see'

a boy and his dog ***looking not*** *his frog.* (1111: girl, N11)

The example above is taken from an A1 text and most likely corresponds to Norwegian *se* 'see'. The difference between *see* and *look* is difficult for Norwegian learners, as the distinction does not exist in Norwegian at the verb level. To express the meaning of *look*, Norwegians would add a particle to *se*, parallel to *look* + particle in English; this construction type is attested in the present dataset at the A2 level and classified as ACT, e.g.

the dog ***seeing on*** *a frog in a bottle.* (1129: girl, N11)

The use of *look* above is thus a stative meaning that corresponds to a Norwegian stative meaning, and it is therefore likely that the use of the progressive is linked to the verb type rather than lexical aspect.

A typically stative verb that is only marginally used[131] in the progressive by native speakers is *like*; this pairing should therefore not be found in young L2 learners according to AH, and yet one token is found in group A2 11, but none in the more proficient groups:

The [frog] ***is liking*** *the other frog*. (1133: boy, N11)

Further down the list we find *live, feel* and *wonder*, which are all frequent in the progressive according to Biber et al. (1999: 472). All three are found in the progressive in A15, N11 has one token of *live*, and *wonder* is used once in N15. Other verbs that are not unusual in the progressive are *work* ('function'), *shine, assume* and *wear*, which are only found in the oldest groups. On the whole, A15 only uses the progressive with state verbs that are relatively common in this form, but all the other groups have tokens that are unexpected. A11 has one token of *smell* in the sense of passively perceiving odour, rather than actively smelling a specific object:

the boysmeeling[132] *something bad* (1353: boy, A11)

The above example is from a rather poorly written text, with two thirds of all verbs in the progressive; many of them without an auxiliary, which is unusual in the native-speaker

[131] Less than 2% of the time, according to Biber et al. (1999: 472)
[132] No spacing in original.

texts. This may be an indication that understanding the finer details of the use of the progressive may be a matter of literacy skills in native speakers as well.

Finally, the one token of the verb *understand* is found in the B-level group:

he look likes his not understanding the situation. (1461: boy, N15)

This verb type is not typically used in the progressive, but the meaning expressed in the example above seems to be temporary duration and therefore in line with native-speaker usage.

To sum up, the different stative verb types are not used often in the progressive, but they do occur and contributions are from a number of different informants, so the usage cannot be ascribed to one or two statistical anomalies. Most of the tokens are with states that are relatively commonly used in the progressive, and this usage thus falls within Housen's (2002b) interpretation of the Aspect Hypothesis. In the native-speaker groups almost all tokens are of this kind, but the L2 learners have a few occurrences in prototypical states as well, at all proficiency levels. Even a few tokens of this kind means that the part of the Aspect Hypothesis dealing with state progressives must be seen as a solid trend, rather than in absolute terms. It should also be noted that of 60 different types of state verb phrases, 13 are used in the progressive at least once. Examples of types that are not used in the progressive at all, on the other hand, are *believe, contain, enjoy, forget, hate, hope, know, love, need, seem, think* ('believe')*, want.*

In non-finite contexts, the situation is quite different, as seen in Table 5.9.20 below. This table gives an overview of all verb types that are used in such contexts, in all groups except N11, where only two such types are found: *wonder*, with one token of ING; and *see*, in five INF tokens. There are 22 verb types in this table, and only one of them – *keep* – is never used with ING. The most frequent of these verbs is *see*, which is only used twice with ING, in A15. If not for this verb's contribution, a clear majority of the state tokens would have been in ING; as it is, the proportion is still close to half of the total. There is no apparent pattern to this usage, as most types are only represented by one or a few tokens, but we may note that some types that were not used in the progressive are found with ING, e.g. *belong, contain* in N15; *think, stay, know* in A11; and *think, hope, know, hear, love* in A15. Others do not have any finite counterparts at all in this dataset, such as *light up* (*lighting up the room*) and *overlook* (*overlooking a pond*).

Table 5.9.20: State verb phrases in non-finite constructions, all groups except N11.

	N15		A11		A15		
verb	**ING**	**INF**	**ING**	**INF**	**ING**	**INF**	**total**
see		14		14	2	28	58
miss	4		4		10		18
have	3	1	1	2		1	8
look	2		3	1	1		7
think			2		4		6
live	1	1			1	3	6
stay			1	4		1	6
hope	1				3		4
feel	2		1			1	4
know			2		1		3
hear				1	2		3
wonder	1				1		2
belong	1	1					2
contain	1					1	2
keep		2					2
hang	1						1
ignore			1				1
interest			1				1
light up	1						1
love					1		1
overlook					1		1
worry					1		1
total	**18**	**19**	**16**	**22**	**28**	**35**	**138**

Lexical BE

The final item in this overview of the use of states with progressives, is lexical BE. As discussed in section 4.8.2.2, there is good reason to exclude this verb from the general statistical analysis, but that does not mean that its contribution to the whole should be completely overlooked. In Table 5.9.21 below, we find an overview of the distribution of lexical BE in all contexts, in all groups. We see that there is no shortage of this verb in any of the groups, but it is used particularly much in the oldest groups, both L2 learners and native speakers, whose texts are longer overall.

Table 5.9.21: Distribution of lexical BE in finite and non-finite contexts, all groups.

	NON	PROG	INF	ING	total
N11	191	1	1		193
N15	370		20	1	391
A11	269	1	11	2	283
A15	324		22	5	351
Total	**1154**	**2**	**54**	**8**	**1218**

In such a large number of tokens, it would not be completely surprising to find some in the progressive, since this is a possible way to express e.g. a temporary characteristic, but only one native-speaker informant has used this form/meaning pairing, in

I see the boy ***is being very quiet****.* (1351: girl, A11)

In the example above, the verb phrase expresses a situation whose duration is temporary and controlled by the subject, and the progressive is therefore acceptable. The only token used by an L2 learner, on the other hand, might indicate a temporary situation – 'being wet' is something that tends to pass relatively quickly – but it is beyond the subject's control:

the boy is faling in the water and hi ***is being weat*** *and the dog to.* (1135: girl, N11)

In this case, physical perception, the sensation of wetness, seems to be more salient than the duration of the situation. This particular learner is at the A2 level and has a high frequency of the progressive in her text, around 50%, but produces verb phrases in both the base form and marked for present tense, so she does not just use the progressive as the default verb form.

The progressive is not used with lexical BE in any of the older groups, and with only two tokens produced by 11-year-olds, it is safe to say that this is a form that learners generally shy away from, especially given that they generally seem to master the whole inflectional paradigm, if not the correct distribution, including periphrastic forms with modal auxiliaries. The base form, which is so frequent in other verbs, is only found in three tokens in finite contexts.

When it comes to non-finite contexts, there are fewer tokens overall, but more are found in the *-ing* form*,* relatively speaking. N11 has only one token of INF, and only one of 21 tokens is in ING in N15, at the B level:

Both the boy and the dog smiled at each other, ***being*** *happy for still having their lifes.* (1459: boy, N15)

The construction is somewhat odd, and would in fact be better if *being* were omitted, but similar use is in fact found in the native speakers as well:

Tyler finds that the frog is behind the log ***being happy*** *with his family.* (1302: boy, A15)

The native speakers also have mainly INF tokens (11 in A11 and 22 in A15), but use ING in both age groups; they are used as supplementives, as complement of *enjoy*, or as prepositional complement, e.g.

He scolds Jack for not ***being careful****, but his glad Jack is okay.* (1284: boy, A15)

In sum, lexical BE is used much less in the progressive than other state verb phrases in both L2 learners and native speakers, but we see a similar trend overall: learners do sometimes overextend the progressive incorrectly to these contexts and states are much more acceptable with ING than with the progressive.

5.9.8 Faulty verbs

The final verb category in this analysis is one I have termed 'faulty', as it is impossible to recognize them as English verbs. These are only found in finite contexts and, with one exception, only in L2 learners. The intended meaning is often possible to guess, when the verb in question is either clearly a Norwegian verb used directly in the English text or an attempt at making the Norwegian verb look more English. A scrutiny of these few tokens (51 in total) will provide a partial answer to the question of whether the progressive is a productive category in these learners, or is simply linked to specific English verb types.

Table 5.9.22: Faulty verbs.

level	NON	PROG	total
A1	22	11	33
A2 11	8	2	10
A2 15	1	1	2
B	1	4	5
A11		1	1
total	**32**	**19**	**51**

From Table 5.9.22 above, we learn that as many as 33 of the 51 tokens are found at level A1, despite the fact that there is only one third as many texts in this group as in A2 11. This is not really surprising, since the least proficient group inevitably will have a smaller vocabulary and less sensitivity to what is acceptable English. It may in fact be one of the reasons they are placed at this level. On the other hand, as many as five tokens are found at the B level as well,

and only two in A2 15. The nonprogressive tokens are mainly in the base form or with Norwegian present tense inflection *-er*, as in

*The dog jump and **plager*** [‘bothers’] *the biehaoe.* (1124: girl, N11)

Only one token is with English present tense *-s*:

*He **shups*** [?] *for the frog but nowbady answear!* (1100: girl, N11)

Examples of other verbs are *screat, arom, stans, skaot, clabel*, which do not make sense in either language, but whose meaning is somewhat possible to glean from the context. In other words, if verbs of this kind are used in the progressive, it is not because the learners have heard native speakers use them. As many as 19 of the 51 tokens are in the progressive, which means that the form is as much used with non-English verbs as with identifiable English ones. This is a clear indication that the form is productive in learners even at the very lowest level of proficiency.

Table 5.9.23: Complete list of faulty verbs in the progressive.

verb form	likely or possible meaning
liging	Lie
ropin	utterance
is roping	
scuin	
is scrikcing	
is wishing	
titing	look
titing	
leiting	search
lieitin	
is leiting	
is klatring	climb
vas klatring	
is klatring	
is now claming	hug
was claming	
was thoughing	Throw
are now opdatring	find out
canching	Chase

Table 5.9.23 lists all faulty verb forms in the progressive along with their likely or possible meanings, as far as it can be gathered from the context. We see that few of them are grouped in meaning clusters, so that the progressive covers a wide variety of meanings. Note that *wish* is a homograph of the English word, but is found in the context where the boy seems to tell the dog to be quiet, and the intended meaning is most likely 'whisper'; Norwegian *hviske*:

the boy is wishing to the dog. (1115: girl, N11)

This list shows that the progressive is not only associated with the English lexical inventory. Instead, it seems that the learners have formed some schematic idea of the semantics of (BE) V-*ing* itself. It is clear from the previous sections in this chapter that this concept is not entirely like the way native speakers, or even more proficient L2 learners, perceive this form, but it has nonetheless a value that is not completely dependent on the form of specific English verb types.

6 SUMMARY AND DISCUSSION

This chapter summarizes the findings presented in chapter 5 and discusses them in light of the hypotheses set forth in section 3.5 and the theories outlined in chapters 2 and 3.

6.1 The hypotheses

The first hypothesis, H1, deals with the informants' language background:

> H1: *Language background.* Norwegian learners overuse the English progressive construction compared to same-age native speakers.

The question of whether the results support this hypothesis is not as straightforward as it may seem. The initial answer, based on quantitative measures alone, is that Norwegian learners clearly overuse the progressive compared to the native-speaker informants in this study. In other words, both teachers' impressions and Johansson and Lysvåg's claim that the form is overused (1987: 158) seem to be correct, although the present study does not presume to resolve whether this may be related to emphasis in teaching materials, as Johansson and Lysvåg think (ibid.). On the other hand, the multivariate regression analysis conducted to test the effect of various independent variables (see section 5.4) shows that the L1 effect is cancelled out when semantic factors are taken into consideration. If anything leads to overuse, it does not seem to be whether or not English is the informants' L2, but rather how frequently activity verb phrases are used in a text. On the surface, then, the reason for overuse of the progressive thus would seem to be that Norwegian learners overuse activities compared to native speakers. Such an analysis does not paint a complete picture, however. In section 5.9, we saw that even with individual verbs the Norwegian informants quite consistently use the progressive more than their native-speaker peers. Consistent overuse was also the case when the verbs in question were all found in telic contexts, thus ruling out an activity interpretation of the verb phrases. All in all, then, the conclusion must be that the results support H1.

Even with such clear support for the first hypothesis, the results are nuanced when other independent variables are factored in. The second hypothesis concerns age, which in this study subsumes the related factor 'years of instruction' in the case of the L2 learners:

H2: *Age.* If overuse is attested, there is less use in older learners than in younger ones.

At age 10-11, the youngest L2 learners had had five years of formal instruction in English as a foreign language and the oldest learners ten years at age 15-16. The results do not tell us whether any differences are due to learner age itself or to the effects of instruction or other sources of input, but they do inform us about development over (apparent) time. Here we find that the frequency of the progressive goes down considerably with age in the Norwegian informant groups, from around 38% to around 20%. This age difference mirrors the one found between very young native-speaker age groups in Berman and Slobin's study (1994: 138), which also relies on the Frog Stories, where 3-year-olds used the progressive in almost 40% of all cases, while the frequency had dropped to less than 20% at age 5. There is also an age difference in the American informants; the youngest group uses the progressive more than the oldest one here as well. The difference is slight, but all the more pronounced considering that the youngest group uses the past tense more than the oldest one; a context where the progressive is less expected than in the present tense. In section 3.5, however, it was noted that the progressive is more frequent in the past tense in fiction (Biber et al. 1999: 461-2); differences between the native-speaker groups might therefore be due to genre awareness. Be this as it may, there are consistent age differences in all parts of the analysis and this variable is initially statistically significant in a block analysis, before the variable lexical aspect is included. The results therefore support this hypothesis as well, barring the influence of more significant variables.

The third non-linguistic variable included in the analysis is gender, which was chosen not because of results from previous studies of aspect marking, but partly because of more general studies that indicate differences in the way boys and girls use and process language (cf. section 5.6.2), and partly because an initial count superficially indicated gender differences in the use of the progressive (cf. the data-driven approach outlined in section 1.5). As neither of these approaches gives a clear indication of what to expect, the hypothesis is open to any result:

H3: *Gender.* This variable is included, but no prediction is made. The null hypothesis is chosen: there are no significant gender differences when it comes to the use of the progressive. The material then has the potential to reject the null hypothesis.

Initially, the results seemed to indicate quite clear and consistent gender differences: Overall, Norwegian boys use the progressive more than girls in the youngest groups, while the situation is reversed in the older groups. In the native-speaker groups, girls use the construction less

frequently in both age groups. A closer scrutiny of the data shows that Norwegian boys not only use the progressive more; on the whole, the younger boys are more likely than girls to use any kind of verbal coding – the progressive just happens to be the most frequent choice. Results from the older groups then seem to reveal a gendered "time lag", where the girls – relatively speaking – catch up on the overuse, while the boys have reduced their use of the progressive and are instead on the *avant garde* when it comes to using ING. These findings run counter to the popular notion that girls on average have better language aptitude than boys, though this may certainly not be generalized to other areas of language use. However, the multivariate regression analysis considering all the variables included in this study show that gender in itself is not a significant explanatory factor when it comes to the use of the progressive; rather, it seems to be a by-product of other mechanisms at play. The progressive is clearly associated with activity verb phrases and the apparent gender differences seem to reside in different approaches to text writing rather than in the informants' understanding of the progressive itself. The results attest to the importance of looking at the larger picture and not just at one feature alone. This is not to say that the observed gender differences are not real, only that such differences are most likely either random or may be attributed to other factors than the progressive itself. Gendered use of English as an L2 may well be worth investigating further, but with a focus on other types of language use than the progressive. In the present study, one may not reject the null hypothesis and gender was not kept as a variable throughout the analysis.

Unlike gender, proficiency level proved to be an important factor in the use of the progressive, as well as in the use of the variant ING, as predicted in H4:

> H4: *Proficiency level.* As Norwegian learners attain a higher level of general proficiency, their understanding and use of the progressive will be more native-like.

It should come as no surprise that with higher proficiency level comes a greater and more accurate command of the language, but the results were still somewhat unexpected. Instead of a gradual cline across levels in the frequency of the progressive, there was a clear difference between levels A1 and A2 on the one hand and level B (mainly B1) on the other. In addition, I had assumed beforehand that the biggest difference would be between the most proficient L2 learners and the native speakers. Quite to the contrary, the B-level group consistently displays usage that resembles that of the American groups when it comes to the use of the English progressive, as well as ING, in almost every measure used in this study. Learners at CEFR-level B1 are not particularly proficient, but have a good command of the language. Judging

from the descriptors used throughout the CEFR (Council of Europe 2001), native-like command of the language is not expected until at least level C1, and the texts analyzed in this study do not stand out as particularly well written or grammatically accurate. One of the teachers of the N15 group also described the participants from her class as "quite average". It is therefore odd that performance at the B level should be this close to that of same-age native speakers, and not least indicative that the progressive may not be as difficult for learners as one is sometimes lead to believe. Instead, a good command of the construction seems to follow quite naturally from simply reaching a certain level of overall proficiency. As seen from Axelsson and Hahn's (2001) study, Swedish and German students do not display any noteworthy overuse, and the results from the present study indicate that usage levels out at an earlier stage than higher education. In sum, H4 finds support in the results from this study, even to a greater degree than expected.

In the fifth hypothesis, we move on to linguistic variables, in this case grammatical tense marking. Since the progressive indicates an ongoing – rather than completed – process, it is more likely to occur with the base or present tense than with the past tense, and this is reflected in the hypothesis:

> H5: *Tense.* There will be a strong correlation between tense and aspect coding. Three sub hypotheses are postulated:
>
> 5.1 There will be a positive correlation between the progressive and *no overt tense marking* (base forms) in the L2 learners. This effect will subside with increased age and proficiency.
>
> 5.2 There will be a negative correlation between the progressive and the *past* tense in all groups.
>
> 5.3 There will be a positive correlation between the progressive and the *present* tense in all groups.

In all the groups, there were large individual differences when it comes to the choice of tense, and it was therefore difficult to evaluate the results based on descriptive statistics alone. As already mentioned, one surprising finding was that the Norwegian boys use verbal coding in general – not just the progressive – more than the girls, which may explain some of the observed differences between the two genders. At the text level, the results seem at first glance to give support – albeit weak – to all parts of H5, particularly regarding the base form, which is mainly found in the groups that have a high frequency of the progressive. However, the multivariate regression analysis in section 5.4 does not show a strong correlation between the progressive

and each of the tense forms, particularly not the past tense, where the correlation is in fact positive, but not at all statistically significant. For the base form and the present tense, the correlation is positive, in line with H5, but the statistical significance is not very high, only slightly below the .05 level. As a whole, on the other hand, adding the three tense forms as block variables gives a highly significant result.

The reader is reminded, however, that the statistical analyses are conducted at the text level. When it comes to actual tense/aspect pairings in individual verb phrases, the more detailed analysis in section 5.5 reveals that the tendency in all groups is to use the progressive much less with the past tense than with the present or Ø tense, compared to statistics for the nonprogressive. This tendency is also greatest in the least proficient groups; the groups with the highest frequency of past tense forms (B, A11 and A15) also have the highest proportion of past progressives. In other words, there is a tense bias for the progressive, which seems to weaken with higher proficiency. The question of whether the results support H5, however, is somewhat undecided, particularly since the effect of semantic categories cancels out the rather weak statistical significance that was found for tense correlations. An explanation may be that the statistical analyses do not consider detailed co-occurrences at the text level, and it is therefore possible that the progressive is found in the present tense even in texts with a large proportion of verb phrases in the past tense. Group A11, which is the group with the most frequent use of past tense coding, has a greater frequency of progressives than A15, even though the latter prefers the present tense. Unfortunately, it is beyond the scope of the present work to perform a detailed text analysis, but the use of tense-aspect combinations in individual texts is certainly worth investigating further. At the very least, the results from the present investigation do not contradict the hypothesis, and judging by the descriptive statistics in section 5.5, the informants in this study show a tense bias that supports all parts of H5.

Next, we turn to the hypothesis that has been given the most attention in the present study, the Aspect Hypothesis. The parts of the AH that are relevant are as follows:

> H6: *Lexical aspect.* Norwegian learners of English, as well as young native-speakers, are expected to perform in accordance with the Aspect Hypothesis:
>
> 6.1 The progressive is first and most frequently used with activities, followed by accomplishments and finally achievements.
>
> 6.2 The progressive is not used with states.

As with tense, the results when it comes to this variable are complex. On the one hand, there is a clear positive correlation between the use of activities and the frequency of the progressive.

At the text level, the presence of activities in individual texts is the single most reliable predictor of frequent use of the progressive, with an effect size that cancels out the influence of all other factors. With all the other lexical aspect categories – accomplishments, achievements and states – the correlation is negative, although far from significantly so as regards accomplishments. The greatest surprise is that the strongest polarity is between texts with a high frequency of ACT on the one hand and ACH on the other; the latter with a highly significant negative correlation. In contrast, the negative correlation between STA and the progressive only approaches significance, which means that H6.2 does not find support at the text level.

At the token level, the distribution largely conforms with the AH, in that ACT is most frequently paired with the progressive, followed by ACC, then ACH and finally STA. The association with activities also grows stronger with age and proficiency in the L2 learners, and is particularly strong in the native-speaker groups, compared to the frequencies in the other lexical aspect categories. This finding is in line with Robison (1995: 356), who also notes a stronger link between activities and progressive marking in the most proficient groups in his study, contrary to his own prediction. Overall, all groups in the present study display largely the same general pattern, except that groups B and A15 both have an almost equal proportion of STA and ACH progressives. In addition, STA progressives are found in all groups, which clearly contradicts H6.1, and a closer look at the verb types in STA verb phrases (section 5.9) reveals that even the strong version of the hypothesis, which only allows for prototypical states (Housen 2002b: 166), does not hold. In fact, prototypical states in the progressive – albeit few tokens – are mostly found in the youngest and least proficient Norwegian learners. Although the present study does not cover the very first stages of learning, and therefore cannot state which lexical aspect types are *first* used with the progressive, these results indicate that Norwegian learners at this early stage do not see states as completely incompatible with the progressive. Only with greater proficiency do we find a more native-like usage, which mainly involves non-prototypical states, as seen in the native-speaker groups. However, the use of state progressives goes down with age in these users as well, which is further evidence that this form-meaning pairing may in fact go down with proficiency, rather than up.

My findings are also in line with Robison (1990), Rohde (1996), Housen (2002a, b), Rocca (2002) and Tiitanen (2015), who all find state progressives in learners of English. In Housen, state progressives even emerge before achievement ones and are consistently slightly more frequent than the latter throughout the course of development (apparent time) (2002a: 101). These studies represent varied learner groups. Robison's study is of adult learners with L1 Spanish and Rohde and Housen's (2002b) studies involve young learners with Germanic

L1s; German and Dutch respectively. Rocca's learners are also children, but with Italian as L1; another Romance language. Finally, Tiitanen studies adult learners with the non-European languages Tamil and Mandarin as their L1s. In Housen (2002a) the 46 learners have either Dutch or French as their L1, but the informants are selected from multilingual schools, which implies the possibility of influence from other languages than the L1. Housen gives a tentative explanation (ibid.: 172), based on Robison and Rohde's studies, that state progressives are only produced by untutored second-language learners, but both his own data and Rocca's refute such an explanation, as do the results from the present study. Rocca's explanation for the incorrect extension of the progressive to stative verb phrases lies in the wider scope of the Italian *imperfetto*; she believes her L1 Italian subjects transfer the prototypical meaning of their native-language structure, which is the *continuous* and thus compatible with prototypical states such as *want*. She further points out that one of Housen's (1995) informants, presumably the case study presented in Housen (2002b), is a Dutch-French bilingual, whose knowledge of the French *imparfait* may influence her use of stative progressives.

The use of ACH is also different than predicted by the AH, as it is used more with the progressive rather than less in texts written by the younger Norwegian learners than by the older ones, although the greatest difference is between the proficiency levels here as well. It was suggested in section 3.3.4 that Norwegian learners might display the same sensitivity to telicity distinctions as Tonne (2007) has found for progressive-like constructions in Norwegian, but no evidence of such an interlingual identification is found in the present dataset.

In the American groups, as well as at the B level, the use of ACH in the progressive is overall low. These results speak in favour of the distributional bias hypothesis (cf. section 3.4.2), in that it is likely that older and more proficient learners have had more exposure to and developed more sensitivity to native-speaker distribution of tense-aspect morphology. The findings are also in line with Rohde, whose type count of progressives reveals a high frequency of achievement progressives in the developing interlanguage of two L1 German learners. At some points in their development, the progressive is as frequent with achievements as with activities (1996: 1121-23), or even more frequent. Rohde's explanation is that the progressive is used to indicate future reference more than as an aspectual marker (ibid.: 1124), which fits nicely with Williams' (2002) outline of the functions of the progressive. However, overuse of progressive achievements is found in my data as well, where the material consists of narratives – a context where the event times are either before or simultaneous with speech time. On the other hand, both Housen's and Rocca's data show the developmental path predicted by the AH. As already mentioned, Rocca attributes some of her learners' usage to L1 influence, as Italian

is a language with grammatical aspect. This may also apply to Housen's (2002a, b) L1 French informants, whose knowledge of the French *imparfait* may initially preclude the use of achievement progressives. Dutch, on the other hand, is a Germanic language, like Norwegian and German. Although it is possible that L1 Dutch learners in Belgium may have sufficient knowledge of French that it might influence their use of English, this is not the case for the L1 Norwegian learners in the present study. Such differences as are found in learners with various L1 backgrounds warrants further studies into L1 influence on the acquisition of the progressive on a larger scale. Any knowledge, not just L1 competence, of a language that encodes grammatical aspect should thus be investigated as a potential factor.

Finally, while most AH studies have either concentrated on past tense contexts or viewed tense and aspect as completely separate categories, the present study has also looked into the combination of tense and aspect markings. The results show that the progressive is clearly associated with present or Ø tense/base forms (the latter mainly in N11) in all lexical aspect categories. However, if the progressive is used in the past at all, there is a greater likelihood that it will be in an activity verb phrase; the proportion of past ACT progressives is between two and three times as high as with ACC and ACH in groups N15, A11 and A15, which are the ones that have a good command of this tense. Moreover, the distribution in N15 and A15 is very similar, which attests to a sensitivity to appropriate tense-aspect distribution in the former group, in terms of frequency, at least. Unfortunately, the number of tokens is too low to perform a reliable significance test, but given that the test for the nonprogressive shows that the distribution is not random, one may cautiously assume that this might be the case for the progressive as well.

All in all, the results find support for H6.1, but H6.2 is refuted; this part of the Aspect Hypothesis does not find support, even in its strongest version. However, there is a clear tendency for the progressive to be least associated with states and achievements, despite the overuse of the latter in the least proficient learners. That states and achievements should group together in this way is odd given e.g. Housen's (2002b: 165) interpretation of Vendler's (1957) categories: He sees achievements as –stative, –durative and +punctual, while states are +stative, +durative and –punctual. In such an analysis, the two categories are exact opposites, which is at odds with the way they are used with the progressive by learners and native speakers alike. Vendler's original outline is more meaningful in this respect, in that states are seen as punctual, but the point in time is *symbolic* of all other points in time referred to by the verb phrase. Such a reading explains why neither achievements nor states are compatible with the progressive

unless a non-prototypical construal is imposed on them, and why learners do not use them much with this construction – at least compared to activities and accomplishments.

The seventh and eighth hypotheses deal with other uses of the *-ing* form (ING); the first prediction is that L2 learners initially perceive *-ing* as a finite form and only gradually discover that it has other uses as well:

> H7: Norwegian L2 learners of English initially mainly use *-ing* in finite contexts. With increased age and proficiency, *-ing* spreads to other constructions.

The second prediction is that the frequencies of the progressive are correlated with the frequency of ING, so that learners will use the progressive less as they learn to extend the *-ing* form to other constructions:

> H8: There is a negative correlation between the frequency of non-finite *-ing* and the frequency of the progressive.

In the multivariate regression analysis in section 5.4, H8 is completely refuted; there is no statistically significant correlation between the frequency of the progressive and the frequency of other constructions with *-ing* in the texts in this dataset. Given the great quantitative spread of the progressive seen in section 5.3.1, this finding does not come as much of a surprise: A closer look at the data reveals that hardly any of the youngest L2 learners use *-ing* in non-finite contexts, at the same time as learners in this group have frequencies of the progressive that range from 0% to almost 90%. It is thus difficult to find a quantitative correlation between ING and either high or low frequency of PROG, when ING is absent in the low-proficiency texts regardless. When it comes to the *spread* of ING, on the other hand, the results give clear support to H7. Here we see that both age and proficiency level are important factors, as sporadic use of ING only slowly emerges at the A2 level in group N11 and is still in little use at the same level in N15. The use of non-finite clauses, in particular, requires a level of linguistic complexity that is rarely found until the learners reach CEFR level B1, in the present study at least.

As for the construction types found with ING in this dataset, it is clear that the form is primarily used as a verbal category. The majority of tokens are found in non-finite clauses in all groups, particularly as complements of aspectual verbs (cf. section 5.9.6), which is the only non-finite context represented by more than one token in N11. The general trend in both the L2 and native-speaker groups is that ING is closely linked to a tensed verb also when the form does not occur in the progressive construction. The preferred non-finite construction, nominals, is predominantly a main verb followed by an *-ing* clause as direct object, structurally parallel to

auxiliary BE + V-*ing*. Another frequent construction, variably distributed in the informant groups, is adnominals, which are mainly of the type *see* + noun + -*ing* clause; a construction that Comrie sees as having "specifically progressive force" (1976: 40, cf. section 3.3.3). Among the most frequent constructions are also supplementives, which are typically coordinated with the main verb and thus have the same subject as the latter. This use is also progressive-like since it functions almost like a finite verb. The affinity with the progressive can also be seen in examples where the main verb is either lexical BE, as in (1), or a progressive VP, as in (2):

(1) *Jeffrey and Rufus* ***are*** *outside,* ***calling*** *for the frog* (1332: boy A15)

(2) *The boy* ***is screaming*** *out the window,* ***hoping*** *the frog will come back* (1261: girl N15).

In these examples, the tensed verb that gives the non-finite verb temporal anchoring is BE, which has the same form whether it is used as a lexical verb or an auxiliary. Note that the learners who regularly omit the auxiliary in finite contexts are largely the same ones that do not extend -*ing* to other constructions. As the form spreads to other contexts, the use of base progressives also goes down.

Other constructions are used much less than the ones mentioned above; even subordinator-headed adverbial clauses, which are verbal contexts, but where the presence of the subordinator distances the non-finite verb from the finite one. Clearly non-verbal uses are present in the material, but used marginally. Of these, adjectives are slightly, but consistently, more frequent than nouns, and only one adverbial token is found (in N15). The spread thus seems to follow Haspelmath's (1994, in Ziegeler 1999: 82) verb-to-noun continuum (see section 3.3.3). In this respect, the L2 learners follow a similar trend as the native speakers, rather than draw on the formally and/or functionally similar constructions in their L1 (see section 3.3.4). On the whole, the English -*ing* form seems to be identified as a verbal construction, which may not be a locus for transfer of the Norwegian nominal -(*n*)*ing* form, as described in section 3.3.4. This is in line with H10.3, further discussed below, which does not expect any general crosslinguistic performance congruity.

The third hypothesis concerning the use of ING marks a return to the Aspect Hypothesis and brings up the question of whether semantic perceptions seem to be related to the form or the function of the progressive construction:

> H9: *Lexical aspect extended*. Other constructions with -*ing* are learned as extensions of the progressive. Therefore the Aspect Hypothesis may be extended to non-finite constructions and yield the same predictions across lexical aspect categories as for the progressive construction.

While all learner groups display a clear association between ING and activities, as expected – particularly in group A11 – the results are mixed for the other categories. N11 is the only group that shows a pattern like the one predicted by the AH, with ACT and ACC in the *-ing* form in around half of the tokens and barely used with ACH and STA. However, the total number of non-finite tokens is so low, both in INF and ING, that the results are far from reliable. In the other groups, the biggest surprise was that ING seems to be quite compatible with STA, which is found in this form almost as often as in INF. In the oldest groups, both L2 and native speakers, ING is in fact used more with STA than with ACC and ACH. As for the latter two, we find the expected pattern, where ACC is used less than ACT, but more than ACH. However, the proportions for each of these are greater than for the progressive and it seems quite clear from these results that the same restrictions do not hold for ING as for the progressive: no lexical aspect category is incompatible with ING, and certainly not states. The only group that tends towards a negative occurrence with STA and ACH, as with the progressive, is N11 with only one token of ING in each of these categories and enough tokens of INF with ACH, at least, to mark a preference. While this result is meagre in numbers, it is still telling in that N11 is the group that is still grappling with the use of *-ing* in various constructions, rather than as one semantically uniform form. Overall, these results are informative, but must be approached with a good deal of caution, as the basis for quantification is different than for the progressive. The *-ing* form is contrasted with the base form, but not all constructions in the dataset invite an equal share of the two forms and the results may be skewed by which constructions are most used in the different groups. Still, the numbers seem to be representative, as contributions to this pattern are spread out across learners in this study, rather than concentrated in a few exceptions. In sum, then, there is support for the part of the Aspect Hypothesis that claims a strong association between the progressive form – in this case extended to ING – and activities, in all informant groups in this study. While the data do not cover the very first occurrences of these constructions, the distribution is such as to imply that the link between form and meaning is carried over from use in the progressive construction in this case. On the other hand, the proportions of the other three lexical aspect categories are all so large in the three groups that produce a sufficient number of tokens, that it is difficult to claim that the other parts of the hypothesis apply to non-finite contexts. An explanation for this discrepancy may reside in the inescapable relation between tense and aspect that characterizes the progressive construction[133]. The *-ing* form in itself is free from such temporal constraints and represents a summary-

[133] Except in the rare cases where the auxiliary is in the infinitive.

scanning, rather than sequential-scanning, construal, in Langacker's (e.g. 1991, 2001, 2008b, cf. section 3.3) framework.

The last of the hypotheses listed in section 3.5 concerns L1 influence. In section 2.2.7, the discussion of this phenomenon included Jarvis' strict criteria for identifying such influence, which are reflected in the following hypothesis:

> H10: *L1 influence.* This feature is investigated by means of Jarvis' (2000), Jarvis and Pavlenko (2008) three criteria and requires several different sub hypotheses:
>
> 10.1 As the English progressive has no clear equivalent in Norwegian, which could suggest interlingual identification, the null hypothesis is chosen: The groups do not display *intragroup homogeneity*. The material has the potential to reject the null hypothesis.
>
> 10.2 A comparison between L2 learners and native speakers will reveal *intergroup heterogeneity*, cf. H1.
>
> 10.3 No general *crosslinguistic performance congruity* is expected, but Norwegian learners are hypothesised to use *posture verbs* more often than same-age native speakers. These verbs are part of the so-called pseudo-coordination constructions, whose temporal contour is similar to that of the progressive. This effect is hypothesised to increase with L2 proficiency.

H10.1 and H10.2 are subject to evaluation on the part of the researcher and the two must be "examined collectively and defined in relation to each other" (Jarvis and Pavlenko 2008: 46), as intergroup heterogeneity must be greater than intragroup homogeneity in each case. As seen from section 5.3, there are great individual differences in the use of all the features investigated, including tense forms, lexical aspect, number of finite contexts, and frequency of ING. In other words, the texts differ in so many respects that it is difficult to detect much homogeneity, particularly in the youngest L2 learners. Only the most proficient writers, native-speaker group A15 and L2-learner group B, display a high degree of intragroup homogeneity in the use of the progressive (disregarding statistical outliers); even the youngest native speakers show a great spread in their frequencies. In the latter group, there are also gender differences, as the girls show a much more uniform behaviour than the boys. In other words, the writers in this study must reach a high level of proficiency before they seem to agree on an appropriate use of the progressive, which is perhaps related to a good command of the narrative genre. As the native-speaker texts have not been evaluated, it is difficult to tell to what extent they are well written, but one may assume that the older group produces 'better' narratives than the younger one.

This point merits some discussion, as the evaluation of the L2-learner texts includes measures of textual organization as well as more local linguistic features (Council of Europe

2001), so that learners in group B are also better writers in general. Raters are unwilling to evaluate native-speaker texts by the same criteria, simply because native speakers are presumed to have reached ceiling-level language proficiency. However, it is my impression that some of the L2 texts are textually just as advanced as the native-speaker ones and the spread in writing skills is great within the L1 groups as well[134]. At lower levels of proficiency, both L2 and native speaker, there is greater variation, so as not to support H10.1.

With greater intragroup homogeneity in the L2 groups comes less, rather than more, intergroup heterogeneity in the present dataset; the intragroup homogeneity in group B can thus not be seen as evidence of later-stage L1 influence. In light of this, the development in the use of the progressive must rather be attributed to general learning sequences, as has been claimed since Brown's (1973) and Dulay and Burt's (1974a) studies in the 70s.

On the other hand, comparisons with previous studies point to possible L1 influence that should not be overlooked. As mentioned above (see also section 3.4.2), there seems to be a difference in the L2 use of the progressive in lexical aspect combinations, based on whether or not the L1 or another L2 encodes some form of imperfective aspect, as seen for L1 Italian (Rocca 2002, 2007) and possibly L1/L2 French (Housen 1995, 2002a, b). Learners with Germanic L1s, on the other hand, behave differently both in Rohde's (1996) study of L1 German children and the present one, particularly when it comes to the use of progressive achievements. As already mentioned, Rohde's suggestion that the progressive is used as a future marker does not hold for the dataset in my study; it is more likely that learners with Germanic language backgrounds initially do not identify the progressive primarily as an aspect marker, but rather see it as a present tense form. This interpretation may explain both Rohde's data and mine, as both German and Norwegian frequently use the present tense to mark future meaning.

The Aspect Hypothesis aside, overuse of the progressive also seems to be a feature of learners with Germanic L1s. Reports of this come from various sources: For L1 Dutch learners Kellerman cites a study based on the Frog Stories (Welting 1996), where many learners use the progressive as the "narrative default". He further points out that this "is also the case for very young Anglophone tellers of the story" (1997: 288) – presumably in reference to the data found in Berman and Slobin's study (1994). Housen also finds great overuse in his L1 Dutch case, but notes that "the overuse rate depends on the individual learner (2002b: 179). For L1 German, evidence of overuse is found in Rohde (1996), and the reported L1 Norwegian overuse

[134] This impression was partly confirmed by professor Angela Hasselgreen (seminar presentation at University of Bergen, September 12, 2012), who attested that young native speakers of English (age 11-12) rarely perform above B1 level.

that served as a starting point for the present study (Johansson and Lysvåg 1987, Axelsson and Hahn 2001) has now been thoroughly confirmed. Such overuse does not seem to characterize the language of learners with other language backgrounds (e.g. Robison 1995, Bardovi-Harlig 2000, Rocca 2002, 2007). The fact that English is also a Germanic language may to some extent explain why speakers of these languages follow a similar path as native speakers of English. One might also claim that another thing that the Germanic-L1 studies have in common is that the learners are very young, so that overuse might be an age-related phenomenon, shared with the very youngest native speakers. Learners with other language backgrounds are often adults. But Rocca's Italian learners are also school-age children, and in light of this one may at least suggest that there is something about Germanic languages that leads speakers to overuse the progressive in L2 English.

Rohde puts forth phonological similarity as an explanation for the use of present participles in contexts where infinitives are required, as in *can going swimming*, since the German nasal infinitive ending *-en* is similar to English *-ing* (1996: 1122). Housen finds this explanation plausible, but interprets it more widely: he suggests that learners use it "as an alternative base form" due to the influence of *-en* (2002b: 173). In light of the present data, however, this explanation does not hold, since the regular Norwegian infinitive form ends in an unstressed vowel *-e* (various phonetic realizations, e.g. [ɛ,ə]). The overuse of *-ing* is therefore not likely to be due to L1 influence, as far as phonetic similarity is concerned.

While L1 patterns related to progressive aspect are not immediately detectable in the present data, there is some evidence that the L2 learners' awareness of linguistic tools for aspectual marking is carried over to the L2. The analysis in section 5.9.2 showed – in accordance with H10.3 – that the use of posture verbs, particularly *sit*, is much more frequent in the L2 texts than in the L1 ones, and particularly in the most proficient learners, in group B. On the other hand, the association between the progressive and these verbs weakens with higher proficiency – but at the same time the overall frequency of the progressive goes down in these groups. The constructions the posture verbs feature in are also somewhat different in the L1 and L2 groups. All in all, the two learner groups' use of posture verbs is different enough that the results point towards L1 influence, although such a claim should be substantiated by a larger-scale study, preferably involving other L1 backgrounds as well. This influence also seems to increase with age and proficiency: H10.3 therefore has moderate support from the present data.

6.2 How do learners see the semantic profiles of the progressive and ING?

The overview in section 5.9 of the use of the progressive and ING with individual verbs has confirmed and strengthened some of the findings in the previous analyses in chapter 5: The developmental trends seen for the total frequency of the progressive aspect with the lexical aspect categories are consistent in a large number of individual verbs, from high frequency in proficiency group A1 to low(er) frequency in group B and the native speakers. On the other hand, there are some verbs that are little used at the very lowest proficiency level and then show either a sharp cline that goes back down with age and proficiency or a steady increase towards a native-like frequency at the B level. Three verbs stand out in that they are clearly used more with higher proficiency: *get, say,* and *try*. These are all among the ten most frequent verbs in the progressive, as well as in other tense-aspect forms, in absolute frequencies in large native-speaker corpora, although only *try* has a distinctive association strength with this form (Wulff et al. 2009: 360-362). It is therefore likely that this trend may be due to accumulated exposure to English, both in school and through media. We also see that the learners at the B level continue to group with native speakers on all counts when it comes to the use of the progressive. Most differences between these groups are minor, with one notable exception: All L2 groups use posture verbs more frequently than the native speakers and in somewhat different contexts, as predicted in H10.

In this connection, it is time to revisit another issue related to these verb types; that of category placement. As seen in section 3.4.2.1, scholars do not agree whether to classify posture verbs as activities or states, though one argument is that they should be considered activities, since they are compatible with use in the progressive. The most frequent posture verb, *sit*, is also the verb type with the highest relative frequency in the progressive in the L2 groups in this study and is high-frequent in the L1 groups as well. Is the usage presented in section 5.9.2, in native-speaker as well as L2-learner texts, reason enough to classify posture verbs as activities? As noted previously (sections 3.2.1 and 3.4.2.1), using the non-ability to occur in the progressive as a hallmark of states must be seen as an example of circular argumentation, when the research question is whether or not a verb phrase category is commonly used in the progressive by various groups of users. It is possible that these verbs fall on a continuum between categories, where the common denominator is the atelic element or, as Biber et al. claim (1999: 473), the fact that they can be controlled by the subject, i.e. agentivity. In addition, these situations have low time stability, which is compatible with the limited duration of the progressive; they are therefore susceptible to change (cf. Williams 2002). Moreover, there is a

visual component to these verbs, which is not otherwise common in states; this adds the factor of referential salience, investigated in section 5.9.

As for the semantic profile of the other verbs used in the progressive, we see that the above-mentioned features, and several others, seem relevant, and that they differ in the various learner groups. Among the factors that have been suggested in earlier research (see chapter 3) are temporal duration, lack of telicity, susceptibility to change and the subject's active control of the situation. The latter two complement each other, as a situation is more likely to change if the subject is in control of it. In the present dataset, we find that the least proficient learners do not find telic situations of short duration incompatible with the progressive at all, and the extensive use of *fall* with this form does not imply that active control is all that relevant either. Instead two features seem more important. First, the progressive seems to be used more if the situation is extended in space rather than, or in addition to, time. This is in line with Durst-Andersen's (2000: 46) claim that children interpret situations in spatial rather than temporal terms (see section 3.2). Second, the learners in this study seem to respond to various forms of salience in the situation, of which spatial extension may be seen as one. In addition to spatial extension the situation may be either what Slobin (2004) calls manner-salient, or salient due to a strong focus on sensory experience, whether this is visual, auditory, olfactory, gustatory or tactile. The notion of the subject's active control is not irrelevant in the latter case, as the sensory experience is stronger when the subject actively seeks it out than when it is passively received. One example is the distinction between *see* and *look*, where the latter has an active agent and is compatible with the progressive, but the former is not, as the sensory experience is passive. All of this can be related to the principle of *embodiment*, which is central in cognitive linguistics. The notion of embodiment and sensory experience also taps into Slobin's theory of *thinking for speaking* (section 2.3), which among other things states that thinking-for-speaking patterns are easier to adopt in an L2 if they refer to phenomena that can be experienced directly (1996: 91).

As a cover term, I call these different manifestations of salience *referential salience* (see sections 3.4.1, 3.5, 4.8.3 and 5.9), as the salience resides in the nature of the verbal referent itself and/or how it is perceived by the experiencer. Verbs that either have little sensory strength, e.g. *see, hear,* as opposed to *look, listen,* or are of a more schematic nature, such as *get, have, go, start*, not to mention *be*, are rarely used in the progressive in any of the groups in this dataset, but the contrast between these verbs and others that are high frequent is greater in the low-proficient learners. *Try* is a case in point, as this schematic verb is not used very frequently in the progressive until level A2 15, when the learners are older and more cognitively mature. This explanation does not cover the full use of the progressive in Norwegian learner groups, but

seems to pick up on a trend in the least proficient groups, supplemented by the other factors listed above. As the learners grow more proficient, and are better versed in abstract, schematic thinking with age, factors such as telicity and temporal duration gain in importance, until usage is virtually indistinguishable from same-age native speakers. In short, young L2 learners do not seem to grasp the relation between the progressive and the abstract category TIME, but rather use the aspect marker to indicate the physical experience in concrete SPACE. Only later is a usage developed indicative of an understanding of the conceptual metaphor TIME IS SPACE, in line with Durst-Andersen's theory (2000, see section 3.2.2). The Vendler categories and the Aspect Hypothesis are both based on the progressive's *temporal* contour, but this might not be the best way to approach language produced by very young L2 learners. While spatial extension is observable and concrete, temporal extension is not, and may therefore be less accessible to young learners as they grapple with the meaning of a grammatical construction. As noted in section 2.3.2, aspectual distinctions actually belong to the non-experiential type of structures; in focusing on the physically experienced part of situations, learners do not seem to grasp the central meaning of the progressive, the situation's temporal contour.

In the native-speaker groups, and largely in group B as well, telicity seems to be one of the most relevant factors, in line with what Wulff et al. (2009) found for adult native speakers. All the groups in this dataset have typical activity verbs as the most frequently used with the progressive, but the reason may be somewhat different in the different groups: Activities are atelic and contrast with the telic verbs in the native-speaker groups and group B, but they are also typically manner-salient and often have both physical and temporal extension, which contrasts with the schematic or abstract verbs in groups at levels A1 and A2.

On the other hand, differences in the importance of telicity do not explain why both native speakers and L2 learners mostly shy away from the progressive in state verb phrases, which are atelic, just like activities. Again, these are situations that typically have little to do with physical experience, and we see that atypical states such as posture verbs and *wear, live* (in the sense of 'reside'), *stay, hold*[135] are all anchored in the physical world, as opposed to e.g. emotions such as *love, hate, like*. In Biber et al., the active perception verbs *look, stare, watch, listen*, which are classified as activities in many Aspect Hypothesis studies, are in fact rather seen as states with a controlling human subject, which then justifies the frequent use in the progressive (1999: 473). To explain all this, we may go back to Langacker's (2009) notion of an *active zone*, discussed in section 3.2.2, and *indeterminacy* (see section 3.3.4). The

[135] All listed as frequent in the progressive in Biber et al. (1999).

progressive has a semantic profile that is constantly negotiated in English-speaking language communities, and that learners try to grasp in their development, as indicated in Housen's outline of the sequential order in which learners mark tense-aspect meanings grammatically (2002b: 162). It most likely includes all the features that scholars have pointed out, such as atelicity, agentivity, temporal (and physical) extension and susceptibility to change. In various contexts, different features have the most prominence and become the active zone. If we turn to a simple textbook explanation, the progressive may be seen as expressing *limited duration* (Bækken 2006: 189), as seen in section 3.2.1. In verb phrases that are already limited (telic, susceptible to change), the progressive adds or emphasizes duration, and in verb phrases that have duration (activities, accomplishments), the progressive adds or emphasizes limits. Either limits or duration thus becomes the active zone. Verb phrases that are difficult (though not impossible) to construe as having either limits or duration (states, achievements) are also less likely to occur in the progressive. Both limits and duration are typically features that humans may actively control. In the young L2 learners in this dataset, these meaning features do not seem to be fully in place, and the most prominent active zone seems to be the referent's physical salience, whether this is manifest in a focus on manner, spatial extension, sensory experience, or something else.

When it comes to non-finite ING, usage is much less restricted than with the progressive. The youngest Norwegian learners do not use it enough for me to say anything sensible about their usage, but we see that many of the same verbs as in the progressive are represented. As for the other groups, there seems to be a clearer tendency for the main distinction to lie in the verb or phrase's telicity; verbs found in telic contexts are found much less in the *-ing* form than atelic ones, even states, although the distinction between agentive and experienced verbs is still seen, especially in the case of perception verbs. One notable result from this analysis is that learners in the B group do not always pattern as clearly with the native speakers as they do when it comes to the progressive, but the number of tokens is too small to get a really clear impression. In general, ING is not frequent enough in the present dataset to really outline any semantic pattern in the use of this form, but it should be evident from the analysis presented here that early learner use of ING deserves more attention.

6.3 The progressive construction in interlanguage systems

In chapter 1, I stated that the aim of the present study was to outline a partial learner *system*, and to track the development of this system over (apparent) time, in both L1 and L2 learners of English. In the case of the progressive, most language acquisition studies indicate that the *-ing*

form is learned before the progressive *construction* (see section 3.4.1), and this study seeks to follow the learners' path of development in this respect.

The prediction that the least proficient learner groups often use the *-ing* form without auxiliary BE in finite contexts was confirmed. In proficiency group A1, almost two thirds of all such PROG tokens were without the auxiliary; the variant is thus not mainly used as a progressive construction, but rather as an invariant *-ing* form. Reasons for this might include the salience and stability of the *-ing* morpheme, characteristics that the auxiliary lack, as discussed in section 3.4.1. At the same time, almost as large a share of the nonprogressive tokens are in the base form, i.e. not marked for tense. This means that target language tense marking largely does not have a place in this interlanguage system. However, the high frequency of PROG – with or without tense marking – means that *-ing* is by far the most frequent type of verbal coding in this learner group. As most learners in this age group, regardless of proficiency level, agreed that they had tried to write the Frog stories "as if it was happening here and now", and their L1, Norwegian, is a tensed language, it is conceivable that *-ing* is perceived simply as a present tense marker at this stage. At this stage the use of *-ing* also appears to be quite random, as a default form, as previously observed by e.g. Housen (2002a: 158) and Kellerman (1997: 288). A look at individual differences shows that the use of PROG has a very high standard deviation, i.e. a great spread of frequencies. This is an indication that many learners more or less choose either PROG or NON as their "go-to" verbal coding; it is even a productive category, used with clearly non-English verbs, as opposed to third person singular *–s*, which is only used once with these 'faulty' verbs (see section 5.9.8). Although it is not possible to confirm the suspicion that PROG is seen primarily as a tense form without access to the learners' own judgments, it is further corroborated by the fact that PROG is used frequently with a number of different verb types, including the ones that fall into the categories STA and ACH. This is despite the fact that the overall frequency of ACT in the individual texts is the single greatest predictor of high frequencies of PROG, regardless of whether the texts are written by L1 or L2 speakers. For STA and ACH, on the other hand, the correlation is negative. However, the distribution of PROG follows the pattern predicted in the Aspect Hypothesis to some extent, although differences between this group and native speakers are so large that the usage cannot be said to support the Distributional Bias hypothesis (see section 3.4.2). In addition, PROG seems to be associated with observable situations, and the high-frequent verbs that are *not* used with PROG are typically more abstract (see section 5.9.1). The results for this group thus point to an emerging awareness of some meaning of PROG, though still far from the target-language meaning. If this is the case, the learners at this stage are slightly past the

pre-functional stage that Housen (2002b: 156) claims comes before the expression of progressive/imperfective meaning (see section 3.4.2).

Another, quite striking, feature of this group's interlanguage is the complete absence of ING; the *-ing* form is only used in contexts where a finite verb is expected. This further supports the theory that *-ing* is interpreted as a tense inflection, and that learners first see the form as expressing only one meaning, cf. the One to One principle (Andersen 1984, see section 3.4). On the other hand, the usage in A1 is quite similar to the youngest native speakers in Berman and Slobin's study, as regards both frequency of progressives, lack of auxiliary (though with fewer tokens in these native speakers), few past tense tokens, and non-use of *-ing* in other constructions (1994: 138). While lexical aspect is not included in Berman and Slobin's study, the overall similarity with their native-speaker three-year-olds, as well as with learners in several other L1 and L2 studies (see section 3.4.1) points towards a natural-sequences interpretation as regards the progressive. Explanations for this may be found in both the salience and type frequency of the *-ing* form, as discussed in section 3.4.1. It is also possible that overuse of PROG is a form of avoidance strategy, as learners at level A1 in this study clearly do not master the use of any other verbal coding. As for Slobin's (1996) thinking-for-speaking theory (TFS), these learners have certainly not adopted the L2 TFS patterns, but their usage does not reflect any L1 patterns either (unless base and *-ing* forms are intended as present tense marking), and must rather be attributed to a general lack of L2 skills at this low level of proficiency.

At level A2 11, the learners are at a higher level of proficiency despite the age and same amount of schooling as A1. There is not much difference in group means in their use of the progressive (41.4% vs. 43.6% in A1), but the standard deviation is greater in the latter group. This indicates a somewhat greater consensus on the appropriate frequency in A2 11; the usage seems less random. At the same time, auxiliary BE is used with as much a 70% of all tokens of PROG, which is more than twice as often as in A1 and at roughly the same level as the three-year-olds in Berman and Slobin's study (ibid.), but the frequency of past tense marking remains low both in the latter group and in A2 11. Verb phrases are more often marked for tense in the nonprogressive as well, although less often than with PROG. In other words, tense is now starting to be established as a category distinct from PROG. This group is also where *-ing* starts to spread to other constructions, albeit still found in a very small number of tokens, and mainly as complements of aspectual verbs; a construction that is quite progressive-like in both form and meaning (see sections 5.8.3 and 5.9.6). There are learners in this group, then, that are starting to go beyond the One to One Principle and use *-ing* with other meanings than finite (present tense?) verb. In Berman and Slobin's study, these other *-ing* tokens are rare in the three

youngest groups, ages 3, 4 and 5; it seems that the progressive must be well in use before other constructions emerge in native speakers as well, albeit at an earlier age. The construction types *-ing* first occurs in are also similar to the present study: either with aspectual verbs such as *keep* or *start*; with perception verbs, e.g. *I see him* ***snoring***; or following existential *there* + BE (ibid.: 140). Only the former type is found in the A2 11 texts; on the other hand, these learners display a greater variety of other constructions, though represented by only one token each.

As for verb semantics, we found in section 5.6 that the distribution of lexical aspect is not much different than in A1, with high frequencies of PROG in ACC and ACH as well as the expected ACT. However, a closer look at the most frequent verbs reveals that this learner group seems to identify the progressive as a *spatial*, rather than *temporal,* category, where extension in space is as important as extension in time for the use of PROG, if not more. Whether or not the situation has a clearly expressed end point, i.e. is telic, does not seem to make much difference (see section 5.9.4), among other things (see section 6.2 above). At this stage, then, PROG finds a place in the verbal system as distinct from tense, seemingly based on both formal and semantic criteria.

In group A2 15, at the same proficiency level as A2 11, but a different age group, tense marking is clearly in place, with only 9% of all PROG tokens without auxiliary BE. The number is higher in the nonprogressive, with 16% of all tokens in the base form, but this may be partly due to Norwegian learners' well-known struggles with subject-verb agreement; there was also a large number of tokens (226) of the *-s* morpheme with a plural subject (see section 4.8.2.2). The past tense is still not much used: only 6% of all PROG tokens, but 23% in NON. The present tense is dominant in both variants, but PROG seems to be clearly associated with the present tense. At the same time, the mean frequency of the progressive is lower in this age group (34%), although the standard deviation is still about the same as in A2 11, and age was seen to be a statistically significant variable in the multivariate regression analysis (section 5.4.2). The mean frequency is still higher than in Berman and Slobin's 4- and 5-year-old informants (25% and 19% respectively) and certainly higher than in the native speakers in the present study, both A11 and A15 (16.5% and 15% respectively). We see that frequencies are higher than in any native-speaker group but the very youngest, even after nine-ten years of formal schooling, but at the same time the development follows the same path as for native-speakers. This finding is only moderately in favour of an L1=L2 interpretation (see section 2.2.7.4); the path is the same, but the frequencies are consistently higher.

When it comes to ING, two thirds of the texts in this group contain this construction; a twice as big proportion of the learners as in A2 11 and almost twice as high average number of

tokens in each text (2.25 vs. 1.25). At this stage, the participle is also more used with perception verbs and in adverbial functions; the latter first used in the 9-year-old group in Berman and Slobin (1994: 140).

Semantically, this group has much the same distribution of lexical aspect as the younger learners at the same level. When it comes to individual verb types, however, there is a tendency for telicity to take on a stronger role in the choice of aspectual form, interacting with the features spatial and temporal extension, which were most prominent in the younger group.

The great shift in development comes when the learners reach level B1, as we have seen throughout this study. The 15-year-olds at this level consistently pattern with their native-speaker peers, and in most respects more so than with the younger native speakers. At this stage, tense marking is quite consistently in place. The share of past tense forms is also higher both in the progressive and the nonprogressive (17% and 33% respectively), but the progressive is mainly associated with the present tense in this group as well. Base forms hardly occur in either variant and are hardly more frequent than in the native-speaker groups; the difference is in fact greater in the nonprogressive, where the use of base forms may still be attributed to a certain lack of subject-verb agreement. The mean frequency of the progressive is much lower than in A2 15, at only 13%, and usage is also much more homogeneous, with a standard deviation of only 12%, compared to 24% in A2 15. Both the frequency and the standard deviation are actually lower than in the native-speaker groups, whose texts are not differentiated by performance level in any way (see section 6.1).

An interesting observation is that group B and A15 have about same frequencies of past tense tokens in both PROG and NON, while A11 has higher frequencies in both variants, and yet their mean frequency of PROG is also higher. These results are partly in line with Berman and Slobin (1994: 138): The past progressive is used much more in the younger groups (ages 5 and 9; around a third of all *-ing* tokens) than in the adult group (only 8%). Though their numbers are somewhat hard to interpret, as all *-ing* constructions are collapsed when given as the percentage of total verbs, it also seems that the total use of progressives, past and present tense, is higher. This resonates with the observation by e.g. Slobin (1996) and Lucy and Gaskins (2001), that thinking-for-speaking (TFS) patterns are strongest around age nine (see section 2.3.1), although the exact nature of this pattern in relation to the progressive needs to be explored further. All that can be said for now is that there is a shift from around age 9-11 to adolescents/adults and that the most proficient L2 learners in this study follow the latter group.

In group B, it is just as likely that the *-ing* form is found in other constructions as in the progressive; ING is found in every learner text at this level (as well as in the one B1 text in

N11) and the mean frequency is 7.1 tokens per text. This usage is even more consistent than in the native-speaker groups, where a small number of texts do not contain any tokens of ING; the mean frequencies are also slightly lower. Quantitatively, both group B and the native speakers pattern with the adults in Slobin and Berman's study, whose *-ing* forms were non-finite in 52% of the cases (1994: 138). It should remembered, however, that their study relies on oral data; the younger informants in the present study had better opportunity to think through the wordings of their written texts and thereby, perhaps, to produce more adult-like, genre-appropriate language.

When it comes to distribution across different constructions, the results are only given for N15 as a whole and not subdivided by proficiency level, mainly because A2 15's contribution is comparatively small (27 out of 207 tokens). The numbers therefore mainly reflect usage at the B level. For a change, the latter group's usage is not most similar to that of A15; their usage is rather somewhere between the two native-speaker age groups. As Berman and Slobin use a somewhat different classification system than in the present study, comparisons are a bit difficult, but adverbial functions (supplementives and adverbial clauses) are used more in B and A15 (over 40% of all tokens) than in A11 (around 27%). This is similar to the distinction between adults (more than half of all nonfinite *-ing*) and 9-year-olds (nearly one quarter) in Berman and Slobin (1994: 140). On the other hand, when it comes to the categories adnominals and nominals, B uses the former more than A15 and less than A11, and the latter less than A15 and more than A11.

Semantically, group B displays native-like use of the lexical aspect categories as well, in both finite and non-finite contexts. The only thing to remark is that both group B and A11 seem to have a stronger association between ACT and ING than A15, while B shies away from ACH to a greater extent than any of the native-speaker groups. As for their use of frequent verb types, there is a slight tendency for the Norwegian learners to rely on spatial extension in their choice of aspect form in this group as well, whereas the native speakers seem to pay more attention to agentivity, as discussed in both Biber et al. (1999) and Ziegeler (1999). More remarkable, however, is that the frequency of the progressive in group B is much lower than in any of the less proficient groups for most verb types; their sensitivity to native-like frequencies is thus not much restricted by verb semantics. Instead, there seems to be a more global understanding of how frequent the progressive should be in a text. As for ING, the numbers are too low to find reliable patterns in the use with individual verbs or verb categories, but it is worth noting that usage seems somewhat less like that of the native-speaker groups in these contexts. This may be an indication that the progressive is well understood at this level, but the

use of ING needs some more development. However, the underuse of ING (participial clauses) in even advanced L2 learners reported in Granger (1997), is not consistent with the results from the present study.

The native-speakers do not differ much from each other from age 11 to age 15, but some development can still be detected, as we have seen in the comparison with group B above. For one thing, usage is more homogeneous in the older group than in the younger one. Second, the younger group uses the past tense more, as well as the progressive, contrary to the prediction that use of past tense would lead to lower frequencies of the progressive[136]. Third, the distribution predicted by the Aspect Hypothesis is more consistent with the results for the youngest group; in A15, ACH and STA are equally infrequent in the progressive. All in all, however, the greatest distinction in the use of the progressive in this study is between L2 levels A1 and A2, on the one hand, and L2 group B and the two native-speaker groups on the other.

The L2 development can be summed up as follows: the stage identified as level A1 consists of a quite uniform use of PROG as a finite verb form, mainly used without auxiliary BE. Other uses of *-ing* are non-existent, following the One-to-One Principle (Andersen 1984). The meaning of the form seems to emerge as "physically salient situations", which is neither the target-language meaning nor an L1 category. This marks what Housen (2002b: 162) lists as the *pre-functional* stage (or slightly above it). At level A2, there is an age difference. The younger learners still struggle with tense inflection, but have the auxiliary in place in the majority of the tokens. According to Housen (ibid.), imperfective/progressive meaning should also occur at this stage: in the present study, it is not clear that this is the meaning the learners have identified. Rather, they seem to attach the meaning of "extension" to the construction. With the auxiliary in place, this learner group also allows for the *-ing* form to feature in other constructions, but to a limited extent.

Older learners at the same level add other meaning features to the progressive, now keeping it distinct from the category *tense*, which they master overall. Nonetheless, it is not until level B1 that the progressive construction is firmly established in the verbal system, with native-like frequencies. The findings here are in line with Andersen's observation (section 3.4.1) that interlanguage systems require revision as the auxiliary node develops and "hitherto independent developments begin to interact" (1984: 91).

If these results are anything to go by, overuse is a real problem as long as BE is not sufficiently used in the construction; the measure used in e.g. Dulay and Burt (1974a),

[136] But see the comments on genre differences in sections 2.3.3 and 3.5; also discussed in 6.1.

suppliance in obligatory contexts, may thus give the false impression of an acquired functor as long as overuse is not taken into account. At the same time, the use of ING also reaches native-like proportions, as well as a distribution across constructions that is quite similar to the L1 groups.

If this apparent-time study is representative of true longitudinal development, we find that learner perceptions of which verb types and lexical aspect categories are compatible with the progressive seem to change over time, in line with Gopnik's (2001) *theory theory* (see sections 2.1 and 2.2), presumably as more input leads learners to evaluate more evidence. At any rate, the kind of conceptual restructuring proposed in Jarvis and Pavlenko (2008: 154-6, see section 2.3.2) is not possible to measure reliably in a study like the present one, with no real access to learner perceptions of the categories involved, but the output the learners produce may give an indication of their conceptualizations. Although the results from this study cannot be used to ascertain that the progressive is initially seen as a tense form, it is at least likely that the least proficient learners conceptualize verbally expressed situations in a manner corresponding more to L1 TFS patterns than to L2 ones. It should also be recalled that what these learners have been explicitly taught about the construction is that is should be used "when something is happening here and now" (teacher's statement; see section 4.4.1); this meaning is usually covered by the present tense in Norwegian. To arrive at target-like usage, learners must develop a more detailed understanding of which situation types are appropriately expressed by use of the progressive, and in which contexts. In the case of Norwegian learners, this means learning to automatize a distinction that is possible, but not obligatory in their L1 (see section 2.3.2), and to associate it with a new grammatical form. The fact that the most proficient learners in this study use the progressive in a native-like manner may be taken as evidence that this distinction has become more prominent in their conceptualizations and that they have indeed acquired L2 TFS patterns.

As for reasons for this development, several of the predictors listed in Pavlenko (2011a: 248-251, see section 2.3.2) are in place for the learner groups in this study. The first one is age: Norwegians learn English from age six, which is well before L1 concepts are fully established. If TFS patterns are strongest around age nine, then learners should be susceptible to new impulses before that time and L2 patterns may develop alongside them, although they are clearly not immediately accessible. Next, they are continuously exposed to the target language outside the classroom through media (see section 1.3), though with individual differences as to the amount of input. This makes the foreign language context less restrictive, even if it far from the immersion context that Pavlenko gives as the second predictor. The third predictor is length

of exposure through residence in a target language country, which is not applicable in this case. However, it may be argued that the great access to English-language input in Norway to some extent makes up for this. The fourth predictor is proficiency: Pavlenko refers to several studies that "demonstrated that advanced L2 speakers – but not low-level or intermediate ones – approximate L2 categories and preferences" (2011a: 250). In the present study there is, as we have seen, a clear difference between levels A2 and B in the use of the progressive. Whether the latter level should be labelled "advanced" is debatable, but these learners sufficiently proficient to be able to produce coherent narratives that in some cases are as well written, structurally, as those of same-age native speakers. One explanation for their usage, then, may be a well-developed genre awareness; they have adopted L2 "thinking-for-writing" patterns. Unfortunately, I do not have any information about the amount of written input they are exposed to. One area of further research should therefore be to investigate the correlation between amount of L2 reading, particularly narratives, and the use of both the progressive and ING.

One reason that Norwegian L2 learners of English reach such a high level of proficiency may be that the two languages are closely related, as Kellerman (1997) observes (see section 2.2.7). As learners become more proficient with years of schooling, they are more and more able to rely on positive transfer as they discover similarities between the two languages, and one of the transferability constraints he proposes, 'homoiophobia', (1997: 282) might decrease. With more reliance on positive transfer, identified in corresponding L2 structures, more processing capacity may be freed to pay attention to less familiar L2 patterns (see section 2.2.7.1), such as the progressive.

There is little grounds for evaluating Pavlenko's fifth predictor, frequency of use, as this differs from individual to individual, and was not included as background information, other than excluding the L2 learners who regularly and actively use English outside the classroom setting. None of the learners can therefore be said to report frequent use. As for the last predictor, the type of required adjustment, which she exemplifies with "incorporation of a new contrast versus suppression of an already existing contrast" (2011a: 251), the former is precisely the kind of adjustment required to learn the progressive, but the latter seems to be more conducive to successful learning. The progressive/nonprogressive contrast should therefore be among the more difficult features to learn, yet learners are often successful, as many studies have shown. Schmiedtová et al. offer "the transparency of encoding of the new conceptual category" as their explanation for advanced L2 learners of English' mastery of the progressive; this construction is both "formally encoded and perceptually prominent" (2011: 94). As the kind of distinction expressed by progressive and nonprogressive aspect does exist in

Norwegian, only expressed lexically rather than formally encoded, frequent exposure to the English progressive serves to highlight an already existing conceptualization, which is relatively infrequently expressed. Once this interlingual identification is made, the frequency of the progressive should also go down, as we see in the dataset in this study. At the same time, the use of posture verbs, which feature in progressive constructions in Norwegian, goes up.

In sum, only two of Pavlenko's predictors – age and proficiency – are prominent for the learners in this study, but factors such as salience, language typology and psychotypology may add to the explanation for the successful learning at proficiency level B1 and above. Other factors suggested in chapters 2 and 3, e.g. avoidance, markedness, overgeneralization and type frequency, may also be relevant, but the reasons for learner development are difficult to tease apart, as none are tested directly. What is certain is that overuse should be no cause for concern in the long run, as it is negatively correlated with increased overall proficiency.

7 CONCLUDING REMARKS

The present study has been an empirical, pseudolongitudinal investigation of the use of the English progressive construction in 89 narratives written by L1 Norwegian learners of L2 English, compared to usage in 76 texts written by same-age native speakers. In this chapter the aims and research questions are briefly outlined and the main findings summarized. Next comes a section that acknowledges some of the limitations of the study, followed by some remarks on the implications the study has for pedagogical practice, before the chapter ends with suggestions for further research.

7.1 Summary of aims and research questions

As stated in section 1.1, the main aims of this study were threefold: to outline a partial learner language system; to chart the development of such a system over time; and to study learner and native speaker development in parallel. It was taken as a starting point that the *-ing form* is learned before the entire progressive *construction* is established and the study is *form-based*, despite the great focus on meaning (see discussions in sections 3.1.2 and 4.8.2). In light of this, the research questions in section 1.6 focussed on several aspects of the use of the dependent variable PROGRESSIVE, including form, frequency and semantic contexts.

There were four sets of research questions, each approaching the use of the progressive from different angles:

1. The first set asked how the frequencies of the progressive in the L2 learner groups relate to the extralinguistic factors **age, gender** and **proficiency level,** as well as to the frequencies of the variants of the linguistic variable TENSE (which includes no tense marking), compared to frequencies in native-speaker groups and in previous studies.
2. The second set dealt with the relation between form and meaning. The semantic contexts of the verb phrases were broadly classified and examined in light of the Aspect Hypothesis (AH) (see section 3.4.2). In addition, the question was raised whether the use of the progressive was guided by more specific semantic traits than those represented by lexical aspect categories.
3. The third set asked how the *-ing* form is related to the progressive *construction* both in terms of frequencies and semantic distribution along the lines of the Aspect Hypothesis.

4. The fourth set queried whether it is possible to detect any L1 influence in the L2 learners' use of the progressive at different points in their development; this is in contrast to the many studies that claim that the acquisition of grammatical functors follows the same path in both L1 and L2 learners (see section 3.4). Only a few studies report of L1 influence in connection with learning verbal coding (e.g. Collins 2002, 2004b), which seems to reside in the details rather than the overall picture.

It was hypothesized that L2 learners in general would overuse the progressive compared to native-speaker frequency, but less so with age and increased proficiency. In addition, all groups were predicted to associate the progressive with the present rather than the past tense, but the L2 learners were also expected to struggle with tense marking overall, especially at low levels of proficiency, and to use the progressive without auxiliary BE initially. Gender was included as a potential factor, but was not predicted to influence the choice of aspectual form.

Predictions about the semantic distribution of the progressive were made based on the Aspect Hypothesis: the variant PROG, which comprises all use of *-ing* in finite-verb contexts, was believed to be most strongly associated with activities, followed by accomplishments and then achievements, but not used with states at all. There was also an expectation that the AH would guide the semantic distribution of verb phrases in non-finite contexts as well, based on the assumption that learners do not initially distinguish clearly between the different constructions *-ing* features in. The *-ing* form was predicted to spread gradually from the prototypical progressive use to other constructions, along the lines of the syntactic gradience outlined in section 3.3.3.

I did not expect to find much tangible evidence of L1 influence in the material, but I anticipated differences in the use of posture verbs in the two nationality groups. Finally, I believed that an investigation of specific semantic features would reveal that the progressive would mainly be used with easily observable situations in the least proficient groups, and that telic situations would be little compatible with the progressive construction.

7.2 Main findings

In the search for the developmental path of Norwegian L2 learners' use of the English progressive, several approaches have been taken in order to shed light on how this construction fits into the verbal system in the informants' interlanguage. The results were first given as group scores and compared to group scores in other studies. This initial overview showed differences related to all the extralinguistic variables under scrutiny: nationality, age, gender and

proficiency level. All of these were hypothesized to influence the frequency of the progressive in section 3.5. Moreover, the frequencies in the youngest and least proficient L2 learners were similar to those of the youngest L1 learners in Berman and Slobin's (1994) original Frog-Story study, and as with their learners, frequencies went down with age and – particularly – proficiency. This indicates a learning path for these Norwegian L2 learners that is similar to L1 learning, rather than prone to L1 influence.

Next, the frequencies were compared to studies tallying occurrences per 1000 words, rather than ratio of total finite verb phrases, using the former measure. Informants in these studies include both native speakers and advanced L2 learners, all adults. The contrast between adult corpora and the narratives in the present study turned out to be great; not only did the L2 learners in the present study have frequencies vastly higher than even the greatest frequencies in any of the corpora in the comparison, but the L1 narratives also made more frequent use of the progressive than any of the adult groups. Reasons may include both genre differences and greater complexity in adult language, but neither of these were possible to test within the scope of this study.

The summary results were followed by a scrutiny of individual differences in the frequency of both the dependent variable PROGRESSIVE and the dependent linguistic variables. In many respects, differences proved to be as great between individual learners as between groups, particularly at the lowest levels of proficiency. The frequency of PROG ranged from 0% to almost 90%. Such lack of homogeneity speaks against L1 influence in the use of this construction. The range in frequencies was also greater in the youngest native-speaker groups; the greatest homogeneity was found in the older groups, both native speakers and L2 learners at the B level.

With great individual differences in the frequencies of PROG, tense forms, lexical aspect categories, text length (measured in number of finite-verb contexts), use of ING, and general frequency of verbal coding, the results were at times contradictory when it comes to deciding which factors play a role in the use of the progressive. A multivariate regression analysis was therefore used to determine which factors have any explanatory power *at the text level*. The results showed that while the variables L1 (English as L1 vs L2), AGE and TENSE all yield great differences, the greatest predictor of frequent use of PROG was the presence of activity verb phrases in the texts. In addition, proficiency level was a significant predictor. The gender differences observed throughout the analysis leading up to the statistical tests proved to be insignificant in relation to the progressive, but may be worthy of a separate study. In

particular, it seems that Norwegian girls use less verbal coding overall than boys. Also, the presence of ING did not correlate with the use of PROG, in terms of frequencies.

The correlation with PROG was also analyzed at the *token* level, where predictions made about tense and lexical aspect turned out to be quite accurate. PROG was more associated with the present tense than with the past tense in all informant groups, but was initially used even more with auxiliary BE than with present tense marking in the L2 learners. As the use of BE was established, the frequency of PROG went down to native-like proportions.

The main hypothesis investigated in this work was the Aspect Hypothesis, which has been the object of many previous studies, mainly with regard to the use of past tense and perfective marking. The present study confirms the close association between the progressive marking and activity verb phrases (ACT), in both L1 and L2 informants, but there were nonetheless other differences that should not be overlooked. For one thing, the proportions of PROG within the category ACT were greater in the least proficient L2 groups, and greater in the younger than the older native-speaker groups. In addition, the frequencies were relatively high in the other lexical aspect categories as well in the L2 groups; in both group B and the native speakers, there was a clearer distinction between ACT and the other lexical aspect variants (ACC, ACH, STA). This somewhat contradicts the claim that learners are sensitive to semantic differences early on, although the relative distribution was as predicted by AH. Such sensitivity rather seems to be strengthened with greater proficiency. Moreover, there were several instances of non-target-like use of state progressives: the kind that AH does not allow for at all. Another pertinent finding is that the use of state verb phrases other than lexical BE is so infrequent in the least proficient learners that it raises the question of whether this part of the hypothesis is even relevant at an early stage. Concerning AH the question was also raised of whether the results were representative and an overview of the learners' individual contributions showed that tokens generally were evenly distributed among the informants.

The role of *-ing* in other constructions than the progressive was also investigated and the results support the prediction that the form is initially only used in finite-verb contexts and gradually spreads to non-finite ones. In this regard, there are clear differences between the proficiency levels, from no use at A1, to little use at A2, and finally almost native-like use at level B. The use also spreads to progressive-like constructions first; the progressive therefore seems to be regarded as the prototypical *-ing* construction. This prototypicality interpretation is partially strengthened by the fact that ING, like PROG, is most used with activities, particularly in the youngest native-speaker group. However, ING differs from PROG in that its use with all the other lexical aspect categories seems much more acceptable.

L1 influence was not found to be a major factor in this study in general. The learner groups were not homogeneous and the differences were greater between proficiency levels than between L1 and L2 informants. However, the predicted differences in the use of posture verbs turned out to be manifest in the dataset, particularly in terms of frequencies; the L2 learners used *sit*, in particular, much more than the native speakers, and the frequency increased with age.

Finally, a closer scrutiny of individual verb types indicates different perceptions of the semantics of the progressive in the learner groups, where there is a clear difference between verbs with relatively abstract and concrete meaning at level A1; only the latter favours the progressive. At level A2, spatial extension seems as important as temporal one to the learners' use of the progressive. This may account for some of the use of PROG with situations of short duration. Finally, telicity is more established as a semantic distinction at level B; while this is shared with the native-speaker groups, the latter groups also rely more on agentivity, which several scholars hold to be central to the choice of aspectual form (e.g. Biber et al. 1999, Ziegeler 1999).

All in all, we see a clear development of the progressive's place in the verbal system, both as regards form and function, where the *-ing* form is easily picked up, but both the full construction, its function and its distribution fall into place more slowly.

7.3 Limitations

This section briefly outlines some of the limitations of the present study, as regards both data and methods used. First, it is recognized that to outline an interlanguage system, even a partial one, is an ambitious goal, particularly when it is not clear from the beginning which elements are most relevant for identifying a certain linguistic item's place in that system. The data-driven approach described in section 1.5 is in many ways a fruitful one when it comes to allowing for unexpected results and explanations[137]. However, the unpredictable nature of such an approach makes it more difficult to a establish a solid theoretical foundation for the study, with a tight focus. Therefore more is included in the theoretical discussion than perhaps needed to anchor the results. On the other hand, claims resulting from the study are mainly based on learner usage and may be of benefit for future theoretical accounts.

While the statistical analysis of the data is sound, the analysis may in some ways be seen as superficial, since details of the individual texts are not taken into account. For one thing,

[137] Thanks also to Dan Slobin for urging me to keep an open mind and make use of what the data would yield.

the generally held view that the progressive serves as a backgrounding device in narratives – the *discourse hypothesis* (see section 3.4.2) – has not been investigated. In low-proficient learners, it is very difficult to identify narrative function, but it would have been possible in the more advanced texts. In addition, I have not looked for expressions of aspectual contrast in the texts, as when Slobin (1996: 80-81) finds that informants use different tense/aspect forms of the verbs 'run' and 'fall' to describe situations depicted in the same scene.

Other things that would have strengthened the results would be to include L2 informant groups from another L1 background than Norwegian. While L1 influence is not the primary object of investigation in this study, including another L1 group could make it clearer whether the L2 usage can in any way be attributed to their L1 background. It would be particularly useful to include an L1 that has a progressive construction, such as Spanish.

Variation in the material might also shed more light on the learners' competence; as there are known genre differences in the use of the progressive, it is possible that these may also be evident in learner language. Adding oral data or factual texts would thus yield information on the learners' genre awareness. It should also be noted that the native speakers in this study are treated as a homogeneous group, save the age difference. If evaluations of their texts were available, differences might emerge that would widen the gap between the most accomplished writers in the L1 and L2 groups.

The list of limitations could certainly be made longer, and much more could be done with a larger and more varied material, but I will end this section with a note on subjectivity. One of the inevitable pitfalls of a study that involves semantics is the lack of complete consensus on the meaning of linguistic symbols. People broadly agree on meaning, but perceptions of category membership may differ, as e.g. investigations of what qualifies as a 'cup' or 'glass' (Jarvis and Pavlenko 2008: 120-21) show. Even with detailed guidelines, raters do not completely agree on how to interpret the temporal contour expressed by a verb phrase, and theoretical disagreement as to what characterizes a semantic category does not help matters. I have tried to be as consistent as possible, but most likely my choices are still debatable.

7.4 Implications for pedagogical practice

The present project started with the assumption that Norwegian learners overuse the progressive and do not know how to use it. It was further assumed that this study would make it possible to point to specific problems, with the prospect of indicating how this knowledge might enable teachers to better communicate the uses of the progressive to their students. Instead, the analysis has revealed that – despite the very real overuse – learners not only start using the *-ing* form

early on, but also relatively quickly pick up on the primary semantics of the progressive and which semantic contexts to use it in. It seems that it is a greater problem that they do not properly master other verbal coding, including past and present tense forms and the use of the auxiliary in the progressive construction. Previous developmental studies have provided considerable evidence that *-ing* is the first functor to be acquired (or used frequently, at least), and the lack of acquisition of other verbal coding may lead to overuse of the one form that they master. If this is the case, it is not surprising that overuse tapers out with increased proficiency. Teachers are therefore advised to pay less attention to the use of the progressive and focus more on other verbal coding, particularly on how to use the various forms in different genres. It seems a good idea to shy away from exercises (e.g. cloze tests) that contrast the use of the progressive and the nonprogressive in such a way as to give the false impression that they occur with more or less equal frequency in the English verbal system. The fact that *-ing* is not only a progressive form should also be emphasized, if not until learners have sufficient command of the language to go beyond single-clause structures.

We have also seen that when learners reach a certain level of proficiency, they perform on a par with same-age native speakers, who in turn display higher frequencies than those found in adult corpora. This finding speaks against holding young learners at varying stages of cognitive and linguistic maturity up against adult standards. Thinking-for-writing patterns do not yet seem to be fully developed in young L1 speakers (see section 2.3.4) and should not be expected to be in full bloom in an L2 either, particularly when the focus has mainly been on oral language, as is typically the case until the end of year five in Norwegian schools.

This is not to say that learners should just be left to their own devices when it comes to understanding the progressive. In addition to focussed attention to the role of the auxiliary, teachers should be more explicit about how the progressive is used in different semantic contexts, particularly its temporal restrictions. In fact, it seems that one thing that should be pointed out is the very temporality of the construction; that the progressive is primarily a temporal device and that a situation's duration should be factored into the assessment, as well as whether it is anchored in the immediate context, rather than in a more distant reality. It is in this connection that the more abstract(ed) and habitual uses of the simple tense should be emphasized.

Such an awareness of the meaning and use of the two aspectual forms – the progressive and the nonprogressive – begins with greater emphasis in teacher training. Not only should prospective teachers be taught the intricacies of grammatical aspect in English; the insights

from this study should also be made known to them, so that they may recognize the nature of the learners' challenges, rather than merely complain about overuse.

7.5 Further research

Although the present study has provided some answers to the issues it has sought to explore, other questions have been raised during the process and given cause for further investigation. We have seen that Norwegian L2 learners at the beginning of their 6th year of schooling are well aware of the *-ing* form and use it freely in what may or may not be understood as a progressive construction. What we have not learned is exactly when this form first emerges and in which contexts, and the development has not been traced in individual learners. In addition, information about the type and amount of L2 input, inside the classroom and out, has not been available. The role of the learning context is thus one of the missing parts of the puzzle. An answer to such questions calls for a true longitudinal study where learner production, both written and oral, is collected regularly, along with information about teaching materials and the learners' access to English outside the classroom. This could provide explanations as to how and why learners at the same age and with the same amount of schooling arrive at different levels of proficiency, particularly in a group such as N15, where the difference between the proficiency groups is so great in the construction investigated in this thesis.

There is also quite a large gap between the two age groups in this study, in which time the use of ING has gone from minimal to widespread. A longitudinal study would be able to pinpoint the stage where non-finite uses of *-ing* emerge. Moreover, there is one form that has not been included in this study, and that is the *-ed* morpheme, which is shared between the past tense and the past participle in regular verbs. The present study has found that the various uses of *-ing* are indeed connected and go from more to less prototypical use. Further research could reveal whether this form follows a similar path as *-ing* from finite to non-finite contexts. In this respect, it would be essential to include other L1 groups for contrastive purposes, as Norwegian and English have a very similar use of the perfect construction, which is likely to facilitate positive transfer.

The suggestion that *-ing* is initially seen as a tense form should also be explored further. While the present study has looked for traces of crosslinguistic performance congruity, following Jarvis' (2000) three criteria, Norwegian learners' use of tense should also be investigated in texts written in their L1. This would reveal whether their narratives rely on the present tense in Norwegian as well, or if their L2 performance is merely a consequence of a lack of formal mastery of all parts the English verbal system.

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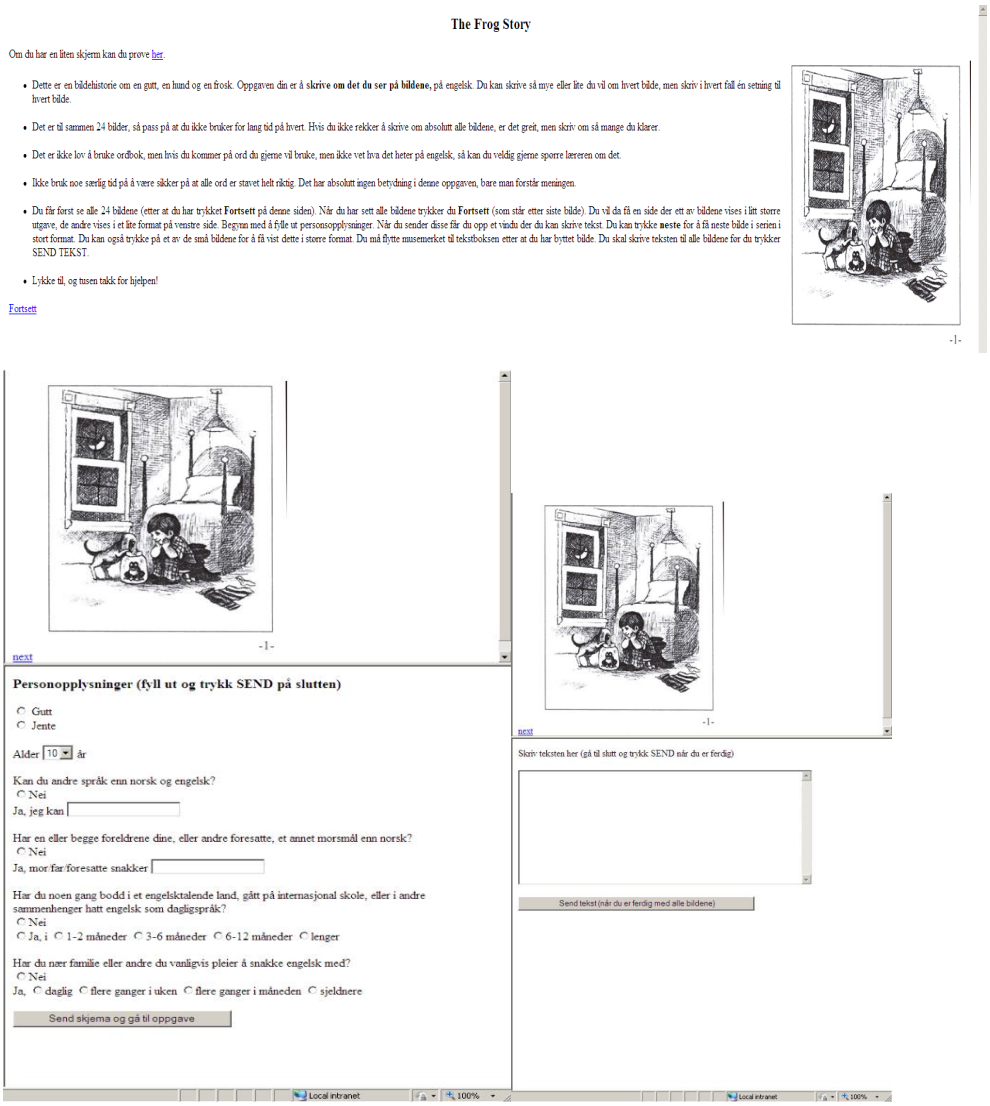
Appendices

Appendix A: Web site screen shots[138]

Norwegian version



[138] Due to copyright restructions, the full set of pictures cannot be reprinted here. I am grateful to Penguin Random House for allowing me to use up to 20% of the book's content.

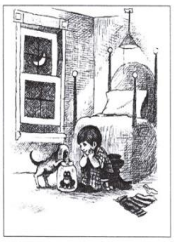
English version

The Frog Story

- This is a picture story about a boy, a dog, and a frog. Please **write about what you see in the pictures.** You can write as much or as little as you want about each picture, but write at least one sentence about each one.
- There is a total of 24 pictures, so make sure you do not spend too much time on each. It is quite alright if you do not have time to write about every single picture, but try to write about as many as you can.
- You will see all 24 pictures when you press **Go to step 1** at the bottom of this page. When you have looked through all the pictures, press **Go to step 2** (which you will find after the last picture). You will then get to a page where one of the pictures is shown in a larger version; the others are shown as smaller ones to the left. Start with the background information. When you send this, a window where you can write your text will appear. You can press **next** to get a larger version of the next picture. You can also press any of the small pictures to show a larger version of that picture. You must move the cursor back to the text box after you have enlarged a new picture. You must write a text passage for each of the pictures before you press SEND. Remember to use punctuation marks after each sentence.
- Good luck and thank you very much for your help!

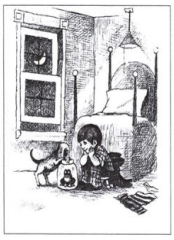
-1-

Go to step 1



-1-

next



-1-

next

Background information (fill in and press SEND when you are done)

Boy Girl

Age 10 years

Do you speak any language(s) other than English? Do not list languages that you have only learned in school

No

Yes, I speak

Do your parents or other close relations have another native language than English?

No

Yes, my mother/father/other speak(s)

SEND information and continue

Write your text here (Press SEND when you are done with all the pictures)

SEND text (when you are done with all the pictures)

Appendix B: Screenshot of Excel spread sheet

	A	B	C	D	E	F	G	H	I	P	Q
1	infnr	L1	gen	age	level	verb	verb form	progressive +/-	Tense	Lexical aspect	context
47	1051	nor	j		11 A2	shout	shout	0	base	achievement	The boy shout in a little rabbit hole and the dog jump after the wasp
48	1051	nor	j		11 A2	jump	jump	0	base	accomplishment	The boy shout in a little rabbit hole and the dog jump after the wasp
49	1051	nor	j		11 A2	come	come	0	base	accomplishment	That come a rabbit out of the hole.
50	1051	nor	j		11 A2	tear	has tear	0	present	accomplishment	The boy is up in the tree and the dog has tear down the waspsnest.
51	1051	nor	j		11 A2	fall (dir)	fall dow	0	base	accomplishment	the boy fall dow the the and the wasps is after the dog!
52	1051	nor	j		11 A2	see	see	0	base	achievement	The boy see a aul.
53	1051	nor	j		11 A2	climb	klimb	0	base	accomplishment	He klimb up on the stone and shout and the dog come thierd back.
54	1051	nor	j		11 A2	shout	shout	0	base	achievement	He klimb up on the stone and shout and the dog come thierd back.
55	1051	nor	j		11 A2	come	come	0	base	accomplishment	He klimb up on the stone and shout and the dog come thierd back.
56	1051	nor	j		11 A2	fall (dir)	fall down	0	present	accomplishment	The dog and the boy fall down a klif.
57	1051	nor	j		11 A2	fall (dir)	fall down	0	present	accomplishment	They fall down in the water.
58	1051	nor	j		11 A2	say	say	0	base	achievement	The boy say shh to the dog.
59	1051	nor	j		11 A2	climb	klimb	0	present	accomplishment	And they klimb ower the trunk.
60	1051	nor	j		11 A2	find	find	0	present	achievement	They find a frog family.
61	1051	nor	j		11 A2	wave	wave	0	present	activity	The boy and the dog wave good bye to the frog family and they take
62	1051	nor	j		11 A2	take	take	0	present	accomplishment	The boy and the dog wave good bye to the frog family and they take
63	1052	nor	j		11 A2	find	have found	0	present	achievement	The was a boy and a dog and they have found a frog an put then in
64	1052	nor	j		11 A2	put	have put	0	present	accomplishment	The was a boy and a dog and they have found a frog an put then in
65	1052	nor	j		11 A2	sleep	sleep	0	present	activity	the boy and the dog sleep on the bed, and now jumping the frog ou
66	1052	nor	j		11 A2	jump	jumping	1	base	accomplishment	the boy and the dog sleep on the bed, and now jumping the frog ou
67	1052	nor	j		11 A2	jump	juming	1	base	accomplishment	the boy and the dog sleep on the bed, and now jumping the frog ou
68	1052	nor	j		11 A2	wake up	wace	0	base	achievement	then the boy wace upp he can't see the frog in the glas.
69	1052	nor	j		11 A2	see	can't see	0	present	state	then the boy wace upp he can't see the frog in the glas.
70	1052	nor	j		11 A2	look	look	0	present	activity	the boy and the dog look for the frog, but they couden't fiend the fr
71	1052	nor	j		11 A2	find	couden't fiend	0	past	achievement	the boy and the dog look for the frog, but they couden't fiend the fr
72	1052	nor	j		11 A2	see	see	0	present	achievement	they see the window was open and they looking out the window but
73	1052	nor	j		11 A2	look	looking	1	base	activity	they see the window was open and they looking out the window but
74	1052	nor	j		11 A2	see	couden't see	0	past	achievement	they see the window was open and they looking out the window but
75	1052	nor	j		11 A2	have	had	0	past	state	the dog had the head in the glas, and the dog jumping out the windo
76	1052	nor	j		11 A2	jump	jumping	1	base	accomplishment	the dog had the head in the glas, and the dog jumping out the windo
77	1052	nor	j		11 A2	break	broken	0	past	achievement	the dog had the head in the glas, and the dog jumping out the windo
78	1052	nor	j		11 A2	come	come	0	base	accomplishment	the boy come out and say to the dog. You moust don't do that.

Appendix C: Overview of informants

The table below lists all informant numbers grouped by nationality, age and gender, and gives the total number of informants in each of these categories.

Norwegian				American			
11		15		11		15	
Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
1049	1050	1254	1255	1151	1150	1284	1288
1054	1051	1266	1256	1353	1152	1286	1289
1055	1052	1267	1260	1355	1351	1290	1291
1092	1059	1271	1261	1359	1361	1297	1292
1094	1077	1273	1262	1364	1362	1302	1294
1104	1079	1274	1263	1366	1365	1305	1296
1105	1080	1427	1264	1367	1369	1306	1301
1107	1083	1428	1265	1368	1370	1307	1304
1110	1086	1429	1268	1372	1375	1314	1308
1113	1095	1430	1269	1380	1376	1323	1312
1118	1100	1431	1270	1382	1377	1327	1313
1120	1109	1432	1275	1387	1394	1330	1325
1122	1111	1446	1434	1388	1395	1332	1329
1123	1114	1455	1436	1389	1398	1334	1333
1128	1115	1456	1438	1404	1400	1335	1336
1132	1116	1459	1439	1416	1407	1338	1337
1133	1117	1460	1440	1420	1409	1339	1341
1134	1119	1461	1441	1421	1410	1340	1342
1136	1121	1462	1442		1413	1344	
1137	1124	1463	1444		1422	1345	
	1125	1464	1449				
	1126		1450				
	1129		1451				
	1130						
	1135						
20	**25**	**21**	**23**	**18**	**20**	**20**	**18**
45		**44**		**38**		**38**	
89				**76**			
165							

Appendix D: Sample texts

Below is a sample of texts, selected to represent all variants of the extralinguistic variables L1, age, gender and proficiency level.

1126 (Girl, N11, level A1)

a litele boy sitting inn the flor. a litle boy sliping. a litle boy titing etter a frog. a boy and a dog leiter after a frog. a boy ropin after a frog. a dog is foling from the vindov. a boy is veri angri. a boy and adog is leiting a long long tame after the frog. a dog is jump inn the tre. a boy is skery. a boy is sitting inn the tre. a dog running from the be. a boy is klatring op the ston. a boy is roping after the frog. a deer is teking a boy. a deer is running and a dog. a boy and a dog is faling dovn. a boy and a dog falin in the see. a boy and a dog are ind the see. a boy and a dog faindin teh frog. a boy and a dog is klatring dovn. a boy and a dog sey good bye.

1128 (Boy, N11, level A2)

the was a boy and he got a frog. one night the frog climbing out off the glas. he was lokoking at the frog he wasen`t ther. he looking all over the plase. he was looking out the windo se if he kan se the frog. the dog was faling out the windo and the boy was angri on the dog. the boy was skriming on the frog becaus he is he`s best friend. he was looking down a hole se if he kud se him. the dog se adre plases, a animal is bting the boy in the nose. the boy is claimbing up in a tree se if he kud find him. the boy is faling down from the tree beakus a oul skerd him. the dog is runing from the bies. the boy is claibing up on a stoe an skriming on his frog. wen he is skriming a reinstyr is koming and take him on the gevir and runing to the clip. the reinstyr is droping the boy off in too a water the dog is faling to. he`s faling donw wid a plosj, but the water wasen`t very long down so he climbimg up on a old tree. he is saing too hi`s dog to be caviet he clambing oveer the old tree and se a frog and a girl frog and ther is coming 6 litel frog cildren. and den he takes his frog and sai god bye to the mom and dad to his frog.

1270 (Girl, N15, level B1)

The boy is sitting on the floor in his bedroom. He is playing with his dog and his frog. It's night and bedtime, therfore he's wearing his pajamas. After some time, the boy is falling asleep, and the frog runs away. The boy is terrefied. He wakes up and there's no frog in the glas! He gets dressed while the dog tries to find the frog. The dog can't get it's head out of the glas, so when the boy and the dog looks out the window to call for the frog, the dog is still having the glass on his head. When the boy is standing by the window pane to think, the dog falls down and brakes the glass. Although the dog is happy to have ha glasless head, the boy is angry with the dog. They both walks out to the forrest to look for the frog. The boy finds a hole in the ground and the dog finds a wasp's nest. Unfortunately the hole in the ground does not contain any frog, but some other animal. The dog is playing with the nest, witch contains loads of wasps. While the boy is climbing up in to a tree, the dog causes that the nest falls on the ground. The dog is getting chaised by the swarm of wasps and the boy falls down of the tree because of an owl scares him. The boy runs away from the owl and gets up on a big rock to get a better view. The dog comes back, not so pleased. The boy bends down over some bushes in the forrest and suddenly finds himself on the head of a deer.

The deer starts running , but the boy can't get of so the dog just follows . Just before the end of the way, the deer stops , so that both, the boy and the dog falls into a small lake. The boy and the dog is rather happy that they are not in the company of a deer any more. The boy and the dog walks towards a big fallen tree. The boy shows to the dog that they both have to be quiet. They look over the tree and find a frog couple! and frog babies! Their frog has a family!

The boy and the dog is very happy when they gets to take their favourite frog back home. They wave goodbye to the big frogfamily, wich is happy that their baby frog got such a great friend.

1267 (Boy, N15, level A2)

a litle boy sitting on the floor. It is night and the boy decided go to sleeping. At the same time his frog tried to escape out from the glass. Next morning the frog was gone and the boy was upset. The is looking for the frog, and at the same time the dog is stuck in a glass. The boy opening the window, the dog went out of it. the dog distroyed the glass when he landed. The boy is not happy. The boy and the dog is searching for the frog in the woods. The dog is barking on a beecube. At the same time the boy screamed in a hole in hope of finding the frog.

A mouse is coming up and the boy is mad. The dog shakes the tree and the beecube falls down. The bees hunting the dog. An owl is flying away near by the boy, the noice makes him jump. The boy is yelling in hope to find the frog. A big deer comes. The deer hit boy. The deer is walking to a cliff, with boy on his neck. The dog runs beside of them. Both dog and the boy is falling down the cliff. Both is landing softly in a litle water. They are glad to be in life. They are sitting behind a tree which is cutted down. The boy is telling the dog to be quiet.

They climbs over the tree. Behind the tree they could see the frog together with other frogs everybody is glad. The boy, the dog, and the frog says " thank you" to the other frogs and than they started to walk home

1362 (Girl, A11)

I see a boy that caught a frog with his dog earlier that day and they've been watching it since they caught him. He fell asleep while the frog. When he wakes up and to his disbelief he found the frog had escaped. Looking around franticly he saw he had left his window open since it was summer he convinced his mother to let him. He was going out to look for him. His dog joined in on the hunt too! Searching, the dog got his nose stuck in a jar. The boy looked out the window did'nt see him and started calling “here, froggy froggy” So eager to find his frog buddy, he accidentally pushed the poor dog out the window. He fell with a crash and the jar broke off of his nose. Not noticing what he'd done the little boy jumped out of the window. Running to the edge of the woods he shouted for his frog again. He found a hole and looked down it, but instead of finding the frog he got a hurt nose. For a ground hog lived in that hole and he hated intruders. The dog knocked down a bee hive and the boy is climbing a tree. A big owl came out of the tree and made the boy fall down, while the dog gets chased by the bees. The owl starts to chase the boy and still looking for the frog stands on a rock. He holds onto a deer's antlers and get's a ride. The deer runs down a steep hill and suddenly stops, throwing the boy off. He falls in a river but is O. K. Thinking he found the frog he leaps over a log. HE DID! Except he had babies. Knowing he can't have his frog back but taking one of the babies he goes home.

1388 (Boy, A11)

A boy named allen is sitting in his room very bored trying to find a way to get this frog out of the container to let it go. but he or his dog can not get it out so he is sitting right trying to think of a plan to get the frog out. Allen got so bored he fell asleep and when he woke up he saw that the frog ahad got out it self but one thing he was worried about was if it left ihis house or if its just hiding. so he got to searching high and low and even tried yelling for it. but every time he tried he heard nothing then Allens dog tried to search the jar and now his heaad is stuck in it. then when they were looking out the windo w his do g endend up falling out the window. and broke the jar this mad allen very angry at his dog but they had to find that frog. so they set off searching because now allen wanted the frog as one of his pets so they went to the forest yelling frogy come back. at one point the found a hole and yelled into it while his dog played with a

bee hive. but the a gopher poppd out. then the bad part come Allens dog had annoyed those bees so much they all came out and started to chase him. Allens dog athena ran over Allen and made him fall over but the good thing all the bees where stil chasing athena. allen climbed on top of a rock and look but almost got scooped up by an eagle. instead a deer bucked allen onto his back the n the deer started running. but pulled a sharp stop and fell of going head on into a river. he landed flat on his butt and started smiling. the reason he was smiling was cause he found frogy but the had to sneak up on him to catch him. they climbed over and saw him and then they understood why frogy had ran away it was cause he had a family so Allen decided that his whole family could live at his house.

1296 (Girl, A15)

#1[139]- There is a boy named Kara. He has a little puppy and a brand new frog that he just found in his backyard. He and his puppy want to stay up all night and stare at the new frog.
#2-Kara and his puppy then get very, very tired and go straight to sleep in the big, comfy bed. While they are sleeping the new frog escapes from his jar.
#3-When Kara and the puppy wake up in the morning they notice that the jar is empty. He looks around his room for the frog, but it is no where to be seen.
#4-Kara looks under his boots, while puppy searches in the jar. The frog is no where to be found!
#5-Kara and puppy then stick their heads out the window and yell for their frog to come back, but they still cannot find it anywhere.
#6- While Kara was looking away, puppy fell out of the window! When Kara looks back and notices puppy is gone he sees him on the ground around a bunch of broken glass.
#7-"Uh oh! Puppy is hurt", Kara thinks to himself. He quickly climbs out of the window, but is very happy to see that puppy is okay.
#8-They both leave the house and head towards the woods. They are both yelling for their frog to come home, but they can still not find him.
#9-Kara looks at a hole in the ground, hopeing that his frog is in there. Puppy barks at a beehive thinking that the frog might have gotten stuck in there.
#10-"No frog here, only a groundhog, " says Kara. Puppy also finds out that the frog is not in the beehive.
#11-Uh Oh! Puppy made the beehive fall. This makes the bees very angry. Not knowing what happened, Kara is looking in a tree for the frog, but it is still no where to be found.
#12-"Bark, Bark, Bark, Bark" yelps puppy. Oh no! Puppy is now getting chased by the angry bees. Kara find a very scary owl in the tree, and he becomes so scared he falls out!
#13-Kara quickly runs to a rock to protect himself from the scary owl. But Kara hits his head on the rock because the was running way too fast.
#14-Kara climbs on the giant rock to look for his frog somemore. Puppy then joins him on the rock to help him.
#15-All of the sudden, a giant moose comes out of the bushes and picks Kara right up off of his own feet. Kara is very surprised by this, but is glad the moose has came to help him and puppy.
#16- Everyone quickly races to a cliff, so they can look over the whole forest for the frog. But still, no luck, their frog is still missing.
#17-While they are leaning over the cliff though, the moose gets very frightened and pushes Kara and puppy over the cliff into a very cold river.
#18-Good thing the river wasn't very deep, because Kara and puppy do not know how to swim! I hope that they are not hurt!

[139] All the 15-year-old American informants referenced each picture by number.

#19-After the great fall, Kara and puppy are both okay. Even though Kara's butt is a little sore, that is not going to stop him from finding his frog.
#20-While in the river, Kara finds a log. He knows that frogs like to live by logs, because that is where he found his frog the first time. He tells the puppy to keep quiet so he doesn't scare the frog away.
#21-On the count of 1, 2, 3... both of them check behind the rock. But still the frog is nowhere to be found!
#22-But wait! Did Kara not look hard enough the first time? Do you see any frogs behind the log?
#23-Yes! Good job you found them! Kara was so excited to find his frog and was ready to take him back home with him. But then, he notices that his frog has a family.
#24-Since Kara does not want to seperate the dad from his family, he asks his old frog if he can have one of the baby frogs. His old frog is more than happy to give him one of his children. Kara and puppy then wave goodbye to the frog family, with his brand new baby frog in his hand. THE END!

1314 (Boy, A15)
1. this is a boy, name Bob Saget o saget. he has a dog named penny. they have found a frog on the bed and they put it in a jar. bob nakes it ben.
2. while the boy is sleep the frog crawls out of the jar and starts on his way home.
3. when the Bob wakes up he finds the frog's jar empty."where did he go. dog did you at it."
4. so the boy is looking for ben. he looks in his clothes. he looks fro him everywhere.
5. So then Bob starts yelling out the window. " Ben where are you. if you come back now i won't hurt you all that much."
6. As little bob is thinking about where ben could have gone. His dog fall out out the window with the jar still on his bi-a head.
7. the jar breakes when the dumb little dog land on the ground. " You stupid dog. You broke the little frogs home. After we find the dump frog you are in trouble." Bob says.
8. so teh boy is thinking and he thinks " Maybe he is out in the woods." so as they walk out to the woods they start calling for Ben.
9. "Are yu in there ben." Bob is saying into a hole in the ground.
10. " no he is not." then a beaver pops up and bits the nipple of bob.
11. tehn he calls into a hol, r in a tree.
12. then a o3wl pops out of the hole making bob fall to the ground. then a swarm of bees fly be chasing his dog." you stupid dog
13. Running from the owl he starts yelling " i'm going to kill you owl." then the owl flies away.
14. Jumping onto the top of a big he starts calling for ben.
15. runing to the end of a cliff over looking a pond. tehn an angery deer comes up and is kicking the boy and his dog of the edge.
18. he lands in the mud.
19. he starts hearing ben.
20 he is telling the dog to shut up. and then they are jumpimg over the log.
22. he finds the be with his sister.
23. ' Please don't tell me wife."
24. he leaves ben with his weird family.

Appendix E: Lists of verb types in the dataset

The table below lists the verbs that were exclusively placed in one of the lexical aspect categories, many of them represented with only one token in the dataset.

Single category assignment
ACT admire, annoy, attempt, bother, breathe, chill (relax)[140], contemplate, continue, dream, fight, flee, fret, gallop, gaze, hang, hang, haunt, hold, hold on, howl, hug, hunt, hurry, kid, laugh, lay (lie), lie, listen, mess with, misbehave, observe, pay attention, peer, play, relax, ride, rub, search, seek, shake, sleep, smile, snort, speak, speed, sprint, spy on, stand, stand, stare, struggle, swarm, take care, talk, try, use, visit, watch, water, wave, wiggle
ACC act, approach, back off, bend, brush, buck, bump, catch (throw), catch up, check, clean, cook, creep, cut open, devise, dive, drag, dress, duck, dump, eat, examine, fall, fall (dir), flip, force, freak out, gather, go, go out, guide, happen, head (dir), kick, kill, leap, learn, lift, open, pick up, plunge, poke, poop, pop, put, raise, return, rise, rush, scoop up, scurry, send, shoo, shoot, show (ditrans), show up, sit down, sit up, sit upright, skedaddle, snatch, snuggle, stand up, step, stick it out, sweep, swoop, take farewell, take off, tear, travel, tumble, venture into, wipe
ACH answer, appear, arrive, ask, attack, awake, bark, beat, become, begin, begin, bite, blow, borrow, break, brighten, bust, buy, call, call (ditrans), capture, catch, cause, claw, convince, crack, crash, crush, decide, die, disappear, discover, distract, disturb, end, end up, escape, fall asleep, figure out, find, find out, freeze, frighten, give up, grab, greet, guess, hit, hoot, hop, hurt (cause pain), hush, instruct, intrude, jam, jerk, join, kiss, land, leave, let, lick, light up, lose, meet, miss (fail), name, notice, offer, panic, peck, peek, peep, perch, pipe, pounce, produce, promise, reach, realize, recognize, resurface, ring, ruin, saddle, save, say, scare, scold, scratch, screech, set, set off, set out, shatter, shout, shout, shush, shut up, slap, snap, sniff, spit, splash, spook, spot, spread, start, startle, steal, stick, sting, stir, stop, strike, surprise, survive, swipe, thank, threaten, touch, trip, upset, wake, wake, wake, wake up, whine, whistle, wish, work out, yell, yelp, yip
STA anger, anticipate, assume, believe, belong, care, conquer, contain, enjoy, feel, fill (be full of), float, forget, get, hate, have, have got, hope, hurt (suffer), ignore, irritate, know, like, live, love, miss (lack), need, reek, regret, remain, remind, seem, shine, show, sound, stay, stick around, trust, want, wear, wonder

[140] Potentially ambiguous verbs, or verbs clearly used with another, related meaning, are given brief explanations in parentheses.

The second table lists the verbs that were placed in multiple lexical aspect categories, depending on their context. The proportions in each category are given in percentages.

ACT		**ACC**				**ACH**		**STA**	
sit	96 %	climb	99 %	scream	18 %	get (adj)	98 %	have	95 %
hide	96 %	get (dir)	99 %	chase	14 %	get	98 %	keep	87 %
follow	92 %	fall	97 %	get (part)	13 %	tell	96 %	work	83 %
chase	86 %	throw	97 %	give	10 %	get (part)	87 %	lead	67 %
do	84 %	knock	95 %	look	10 %	hear	84 %	think	65 %
scream	82 %	come	95 %	follow	8 %	remember	83 %	smell	60 %
cover	80 %	crawl	95 %	do	6 %	make	82 %	understand	60 %
help	75 %	take on	93 %	make	5 %	call (ditrans)	80 %	see	58 %
look	71 %	push	93 %	sit	3 %	whisper	75 %	see	50 %
race	67 %	stick (dir)	93 %	get	2 %	destroy	71 %	agree	50 %
search	61 %	jump	92 %	get (adj)	2 %	give	70 %	call (ditrans)	20 %
holler	50 %	take	91 %	have	1 %	emerge	67 %	remember	17 %
move	50 %	go	91 %	think	1 %	manage to	67 %	hear	16 %
trot	50 %	sneak	91 %			pass	67 %	look	11 %
see	50 %	drop	89 %			change	50 %	give	10 %
fly	47 %	go	80 %			lay	50 %	stick (dir)	7 %
swim	47 %	carry	79 %			pull	50 %	tell	4 %
run	41 %	bring	75 %			slip	50 %		
smell	40 %	fling	75 %			turn	50 %		
walk	35 %	lean	67 %			agree	50 %		
lean	33 %	walk	65 %			understand	40 %		
whisper	25 %	run	57 %			see	36 %		
bring	25 %	swim	53 %			fling	25 %		
carry	21 %	fly	53 %			holler	25 %		
go	20 %	change	50 %			think	18 %		
work	17 %	lay	50 %			drop	11 %		
think	16 %	move	50 %			do	10 %		
make	13 %	pull	50 %			look	8 %		
keep	13 %	slip	50 %			take	7 %		
give	10 %	trot	50 %			take on	7 %		
sneak	9 %	turn	50 %			jump	5 %		
go	9 %	search	39 %			knock	5 %		
push	7 %	emerge	33 %			hide	4 %		
see	5 %	lead	33 %			have	4 %		
crawl	5 %	manage to	33 %			throw	3 %		
come	4 %	pass	33 %			run	2 %		
fall	3 %	race	33 %			sit	1 %		
jump	3 %	destroy	29 %			come	1 %		
take	2 %	help	25 %						
get (dir)	1 %	holler	25 %						
climb	1 %	cover	20 %						

Appendix F: Statistical tests

Pearson's Correlation test (see section 4.10.2).

Correlations

		Percent prog of finite verbs	Nor	A11	Girl	Ø	A1	A2	B1	Base	Past	Present	ACC	ACH	ACT	STA	NonFin
Percent prog of finite verbs	Pearson Correlation	1	,336**	,238**	-,001	-,336**	,203**	,416**	-,213**	,340**	-,323**	,118	,002	-,416**	,679**	-,201**	,189*
	Sig. (2-tailed)		,000	,002	,986	,000	,009	,000	,006	,000	,000	,132	,984	,000	,000	,010	,015
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Nor	Pearson Correlation	,336**	1	,006	,039	-1,000**	,259**	,618**	,400**	,517**	-,299**	-,045	,023	-,283**	,443**	-,193*	,290**
	Sig. (2-tailed)	,000		,943	,617	,000	,001	,000	,000	,000	,000	,568	,773	,000	,000	,013	,000
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
A11	Pearson Correlation	,238**	,006	1	,042	-,006	,232**	,193*	-,402**	,415**	-,038	-,237**	-,012	-,366**	,206**	,081	,265**
	Sig. (2-tailed)	,002	,943		,590	,943	,003	,013	,000	,000	,626	,002	,874	,000	,008	,302	,001
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Girl	Pearson Correlation	-,001	,039	,042	1	-,039	,128	-,015	-,018	,081	-,105	,027	,040	-,192*	,075	,021	,118
	Sig. (2-tailed)	,986	,617	,590		,617	,101	,846	,815	,302	,181	,735	,608	,013	,339	,790	,130
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Ø	Pearson Correlation	-,336**	-1,000**	-,006	-,039	1	-,259**	-,618**	-,400**	-,517**	,299**	,045	-,023	,283**	-,443**	,193*	,290**
	Sig. (2-tailed)	,000	,000	,943	,617		,001	,000	,000	,000	,000	,568	,773	,000	,000	,013	,000
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
A1	Pearson Correlation	,203**	,259**	,232**	,128	-,259**	1	-,187*	-,121	,510**	-,103	-,251**	,060	-,333**	,222**	-,132	,216**
	Sig. (2-tailed)	,009	,001	,003	,101	,001		,016	,121	,000	,187	,001	,444	,000	,004	,090	,005
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
A2	Pearson Correlation	,416**	,618**	,193*	-,015	-,618**	-,187*	1	-,289**	,421**	-,263**	-,009	,124	-,262**	,421**	-,172*	,256**
	Sig. (2-tailed)	,000	,000	,013	,846	,000	,016		,000	,000	,001	,905	,113	,001	,000	,027	,001
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
B1	Pearson Correlation	-,213**	,400**	-,402**	-,018	-,400**	-,121	-,289**	1	-,191*	-,002	,130	-,169*	,182*	-,086	,048	,081
	Sig. (2-tailed)	,006	,000	,000	,815	,000	,121	,000		,014	,976	,097	,030	,019	,272	,537	,300
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Base	Pearson Correlation	,340**	,517**	,415**	,081	-,517**	,510**	,421**	-,191*	1	-,339**	-,356**	,164*	-,416**	,422**	-,226**	,331**
	Sig. (2-tailed)	,000	,000	,000	,302	,000	,000	,000	,014		,000	,000	,035	,000	,000	,004	,000
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Past	Pearson Correlation	-,323**	-,299**	-,038	-,105	,299**	-,103	-,263**	-,002	-,339**	1	,732**	,030	,352**	-,319**	-,040	,057
	Sig. (2-tailed)	,000	,000	,626	,181	,000	,187	,001	,976	,000		,000	,705	,000	,000	,607	,468
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
Present	Pearson Correlation	,118	-,045	,237**	,027	,045	,251**	-,009	,130	,356**	,732**	1	-,136	-,067	,039	,185*	,161*
	Sig. (2-tailed)	,132	,568	,002	,735	,568	,001	,905	,097	,000	,000		,081	,392	,616	,017	,039
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
ACC	Pearson Correlation	,002	,023	-,012	,040	-,023	,060	,124	-,169*	,164*	,030	-,136	1	-,048	-,028	-,621**	,021
	Sig. (2-tailed)	,984	,773	,874	,608	,773	,444	,113	,030	,035	,705	,081		,543	,722	,000	,788
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
ACH	Pearson Correlation	-,416**	,283**	-,366**	-,192*	,283**	-,333**	-,262**	,182*	-,416**	,352**	-,067	-,048	1	-,472**	-,353**	,168*
	Sig. (2-tailed)	,000	,000	,000	,013	,000	,000	,001	,019	,000	,000	,392	,543		,000	,000	,031
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
ACT	Pearson Correlation	,679**	,443**	,206**	,075	-,443**	,222**	,421**	-,086	,422**	-,319**	,039	-,028	-,472**	1	-,323**	,266**
	Sig. (2-tailed)	,000	,000	,008	,339	,000	,004	,000	,272	,000	,000	,616	,722	,000		,000	,001
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
STA	Pearson Correlation	-,201**	-,193*	,081	,021	,193*	-,132	-,172*	,048	-,226**	-,040	,185*	-,621**	-,353**	-,323**	1	,130
	Sig. (2-tailed)	,010	,013	,302	,790	,013	,090	,027	,537	,004	,607	,017	,000	,000	,000		,097
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
NonFin	Pearson Correlation	,189*	,290**	,265**	,118	,290**	,216**	,256**	,081	,331**	,057	,161*	,021	,168*	,266**	,130	1
	Sig. (2-tailed)	,015	,000	,001	,130	,000	,005	,001	,300	,000	,468	,039	,788	,031	,001	,097	
	N	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).