

Candidate number: 55313



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Supervisor: Frank Aarebrot

Language of Political Institutions: Causes of Variation in Language Regimes on EU Commissioner and Directorate General Websites

Preface

A range of systematic incidents in one of my master courses has puzzled me ever since. The experience spurred my interest in language and communication problems in institutions caused by lack of mastery in language. Several Erasmus students registered for the course were severely limited in their presentation of academic work in English. The problems did not seem to be their academic qualities, probably far surpassing our own, but their limited mastery of English. This challenge made several students question the value of and academic limitations to having colloquiums with (Erasmus) students without satisfactory mastery of English. This led again to (unintended? and) hopeful expectations that only Norwegian students would attend the course; hence the lecture or discussion could be done in Norwegian, the language most of us knew best. The most unfortunate was probably that most Erasmus students sustained from the course, even though the course in my opinion was one of the best courses available at the time.

This incident gave me reason to ask three elementary questions: First, does choice of language influence the academic quality of colloquiums, and second, do Erasmus students keep away from colloquiums because of limited mastery in language. Finally, what can be done to improve the quality of multilingual colloquiums? Is it then possible to transfer the same questions and problems to the study of language in political institutions and political participation? Will unequal availability of language in multilingual political institutions limit the democratic functions of transparency and participation? A more precise formulation fitting the thesis might be: Will unequal access to information in official languages on Commission websites hamper and discourage citizens with lack of mastery in the most available languages from using the websites, and thus lead to limited transparency for specific language groups? If so, what can be done to prevent it? This analysis will not answer all these questions, but investigate the language availability and language regimes on the Commission and DG websites by analyzing the causes and consequences of language regimes visible on COMM and DG websites: The tension between language standardization and diversification. This is done to build a basis for further and future investigations into the three questions mentioned above.

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Abstract

Committed to multilingualism, the Commission website struggles to be as multilingual as possible. However, different Commissioner (COMM) and Directorate General (DG) Websites engrafted in the Commission website create very different language regimes that lead to very unequal language availability. The underlying puzzle is the causes of variation in language availability on COMM and DG websites. Following Regulation No. 1 (Council of the European Community 1958), we would expect a coherent language regime between and within all units. However, both COMM and DG websites show substantial variation in language regimes, ranging from the use of one to 23 official member languages. Why are there differences in language availability within and between COMM and DG websites and between levels in website structures?

The efficiency and commitment mechanisms are first discussed in state language development in general, before related to EU language regime formation. Several factors seem to trigger the efficiency and commitment mechanisms, forming language regimes of each unit website. Combining both quantitative and qualitative methods the analysis investigates the causes of variation in language regimes between COMM and DG websites. This is first done by measuring language availability on COMM and DG websites dividing the website structure into three levels C1-C3 that reveal COMM and DG website language regimes. Second, frequency histograms are used to capture different structures in Commissioner and Directorate General website language regimes at each website level. Then different regression models for COMM and DG websites at levels C1-C3 are modelled based on seven dimensions: *Political-Bureaucratic*, *Culture*, *Generality*, *Dynamic-Static*, *Economy*, *Externality* and *World Language*. Each variable are expected to have specific triggering effect on the efficiency and commitment mechanisms influencing COMM and DG website language regimes. Furthermore, interviews of Cabinet members of both COMMs and DGs are conducted investigating the reasons for choices made creating different website language regimes. Variables in the regression models are deduced from expectations based on theory together with information found in the interviews, thus the explorative character of the methods employed is visible.

Abbreviations

CAB = Cabinet

COMM = Commissioner

C1 = First level in the website structure.

C2 = Second level in the website structure.

C3 = Third level in the website structure.

D-G = Directorate-General

DG = Director General

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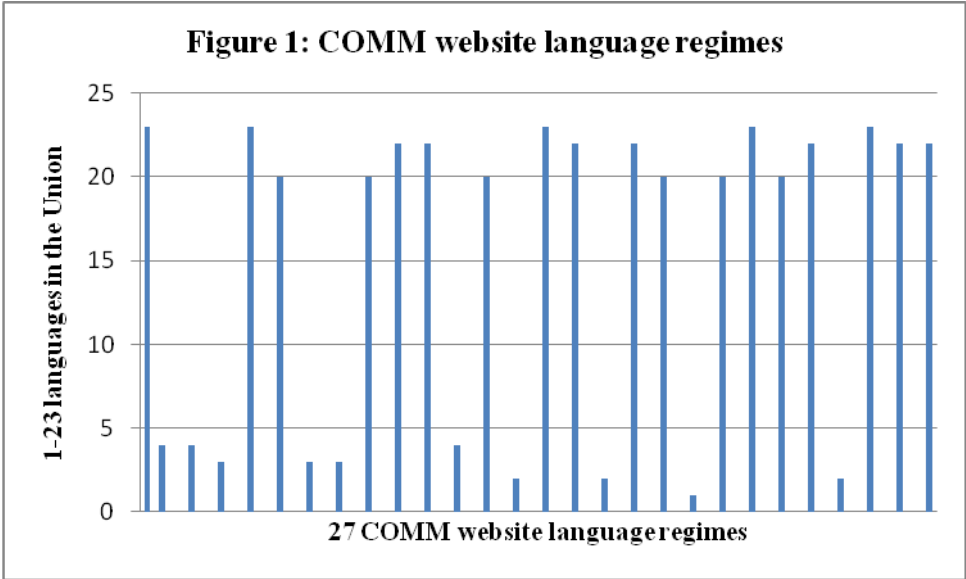
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1. Introduction

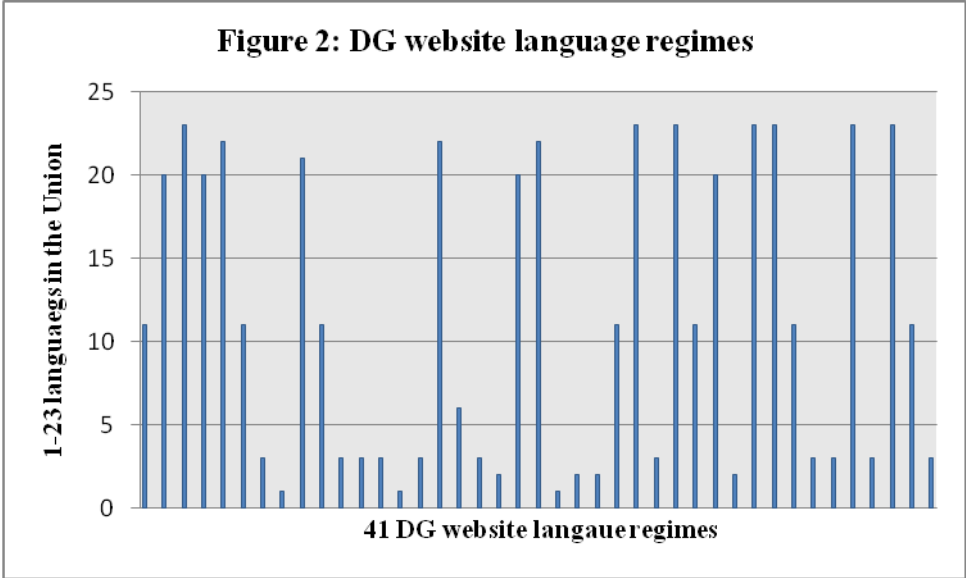
Although all official member state languages are reckoned as official and working languages in the Union, Commissioner (COMM) and Directorate General (DG) websites show substantial variation in language availability. Based on the official multilingual policy in the European Commission, a highly coherent language diversification is expected on all COMM and DG websites. However, the website language regimes are neither coherent nor necessarily very multilingual. The observation units consist of all COMM and DG websites embedded in the general Commission website. An examination of language availability between COMM and DG websites at different levels in the website structure display substantial variation in language availability. A very unequal and uneven distribution of standardization and diversification is seen between all COMM and DG website language regimes. Figure 1 shows the striking variation in language regimes between Commissioners.

Figure 1: Language regimes on COMM first website level



At first website level most COMM language regimes show high degree of either standardization or diversification. An evident process of standardization is seen moving deeper into the website structure. However, there is a substantial difference in language availability between COMM and DG websites, and different portfolios display different language regimes. The same tendency of substantial variation in language regimes is also seen at first website level for the 41 DG websites (figure 2).

Figure 2: Language regimes on DG first website level



Similar to all COMMs, most DGs cluster either between high degree of diversity or high degree of standardization. Both COMM and DG websites show similar structures, formed like a camel dome interesting to investigate. However, a small group of DG website language regimes display a different trend not seen on COMM websites. These DGs are placed in the midrange of eleven languages. Together the three groups form three distinct language regimes followed by most DGs at first website level. The main question to the thesis is the causes of variation between language regimes seen on COMM and DG websites. Is it possible to estimate which variables that will decrease language availability (standardization) and which will increase language availability (diversification)? Another question that will flow from the first is if these website language regime differences create different challenges to transparency and participation among different language groups.

Two mechanisms, efficiency and commitment, are expected to influence language availability and language regimes on COMM and DG websites. These mechanisms are triggered by six dimensions: The dimension distinguishing between political or bureaucratic regimes (*Political-Bureaucratic*), the territorial/regional traits of cultural diversity (*Culture*), and messages delivered to wide audiences contrary to narrow target audiences (*General Message*). The other dimensions are economic exchange and transactions (*Economy*), need of external communication beyond state borders (*External Relations*), languages with hegemonic status within a territory (*World Language*), and whether information is dynamic or static in character (*Dynamic-Static*). The main models tested in regression analysis include all COMM

and DG websites, with the mentioned dimensions. A last dimension that is not a variable in the regression models, cross-cutting the six first dimensions is hierarchical levels or stages called *Levels*. The main goal is to measure how much each dimension will increase or decrease language availability on COMM and DG language regimes, thus investigating causes of language regime change.

1.1. Why COMM and DG websites?

Case selection and topic need to be founded on some theoretical considerations. What are the reasons for analyzing EU and the Commission websites, and why select COMM and DG websites specifically? First, the increased interest in EU language politics and language regimes is evident. However, research on language in EU institutions seems somewhat *underdeveloped*, with little empirical evidence (van Els 2005: 275; Wright 2000), although several surveys and studies of EU institutions were conducted in the 1990s (Gehnen 1991; Haselhuber 1991; Schlossmacher 1994: 106-12, in Kraus 2008). Other scholars use proximate participatory observations of their own encounters with EU institutions or dialogues with other scientists' proximate evaluations of language use in the institutions. Such estimates without any scientific rules of inference tend to be quite biased (Van Els 2001, 2005). Another challenge is that most scholars rely heavily on statistics extracted from Eurobarometer alone without complementary statistics (de Swaan 1993, 2001; Creech 2005). Still the Commission emphasizes the importance of multilingualism enhancing transparency and equal participation in democratic processes in the Union (European Commission 2005c). Evidently there is a need for empirical research on language regime development in EU institutions.

Second, different language regimes at different levels will most probably give different degrees of transparency and opportunities of participation among different language groups, hence turning the question of website language regimes into a democratic challenge. Rokkan argues that the process of elite standardization changes political opportunities of language groups within a given territory (Flora 1992: 111). The Communication from the Commission on multilingualism states that it is a “prerequisite for the Union’s democratic legitimacy and transparency that citizens shall be able to communicate with its institutions and read EU law in their own national language... without encountering any language barriers” (European Commission 2005c: 12), and stresses the will of the Commission to “continue to foster multilingualism on its Internet portal (europa.eu) and in its publications” (Ibid: 12). Because of the flexible and dynamic character of websites, and their immense complexity and size

related to number of portfolios and documents etc, they are very vulnerable for standardization. Therefore, a closer scrutiny of website language regimes will be important to determine causes of different language regimes, and how to form language regimes best enhancing transparency and participation. Moreover, the first website layer on the Commission website is quite static with general information informing the broad population, and very multilingual¹. However, from the accountability and transparency point-of-view COMM and DG websites are more up to date and dynamic, and therefore more interesting and important when monitoring policies. These websites are closer to real politics, being the voice of each Commissioner and DG, and not only general statements about general policy areas most frequently found at the top layer of the Commission general website

Another feature of the EU language regime formation is the increased *consolidation* of the language industry in the European Union, of which translation and interpretation is a substantial part, in a very competitive language market. Adding the substantial growth in the language sector, the language industry is becoming a powerful force to maintain the multilingual character of the political system (Euractive 2009; European Commission 2009b/IP/09/1828; European Commission 2009c). A closer investigation of language regimes in the Union will therefore be of great importance accumulating more information on the subject. Finally, internet communication is the communication for the *future*, and the websites will therefore be an up to date data source finding COMM and DG language regime of internal and external communication. The Internet and COMM and DG websites are like a virtual microcosm of communication exchange similar to the market place seen in Western European nation states. We might expect some of the same processes of economic, cultural, administrative and political exchange to be visible on the websites of the Commission, influencing language regime formation.

1.2. Is language asymmetry a political question?

As mentioned above, the Commission stresses the democratic function of multilingualism, emphasizing increased transparency (European Commission 2005c). A deeper elaboration on the political character of language regimes, especially related to language asymmetry is truly needed, establishing the usefulness of the thesis in comparative politics. Linguistic skills are quite important in a participatory democracy, and “both to set it up and maintain” a well

¹ Interview with Bruno Fetelian DG Communication.

functioning democracy is a very “language dependent process“ (Sue Wright 2000: 137-138). Unequal availability of language (language asymmetry) in EU institutions in communication exchange with citizens creates an information asymmetry between language groups that have unequal access to information in EU institutions in their own language. Thus the information asymmetry leads to unequal opportunities of participation in the political system between different language groups based on different access to information (asymmetric transparency). Especially the possibility of equal and enough information to be able to participate in democratic processes is distorted by the information asymmetry. Philippe van Parijs argues there exists an unfair linguistic advantage, and an undeserved linguistic rent for the most central languages (2004). The information asymmetry is amplified in a political system built on “deliberative democracy”, emphasising active participation between politicians and citizens, compared to a political system only based on representation through elections for office (Flora 1999). Griller and Rumler-Korinek defines equality in this way:

”Equality in this context (democratic theory, my remark) means that every citizen in this specific capacity disposes of the same bundle of rights (and duties), notably political rights and duties, and the right to participate in the political process.”

(Griller and Rumler-Korinek 2004: 8)

Moreover, the question is whether or not the information asymmetry creates unequal opportunities of transparency in the political system, when some language groups are favoured in their access to information in their language compared to others. High degree of standardisation of language in political institutions will possibly interfere and hinder transparency for small language groups, not familiar with the central languages used because they will not be able to access information in languages they understand. The problem of transparency is most precarious for languages with low accessibility in the EU institutions. The question of transparency is not only about the amount of texts and documents available in all languages, but the structuring of information to simplify transparency. It is of little use having all official documents available in all languages if not political units, Commissioners and DGs structure news, speeches and documents with relevant information in the same languages. COMM and DG websites seem more concerned about keeping information they want citizens to receive multilingual than providing citizens with important multilingual information like updated news, press releases and speeches etc. This type of dynamic information is quite important to be able to monitor policies and keep members and bureaucrats of the Commission accountable. Members of the Commission are held

accountable to the European Parliament, but also to their governments and citizens in member states not necessarily very familiar to any of the central EU languages, languages not incorporated in their educational system. This might remind us of the use of Latin in Messes and Scripture reading in the Roman Catholic Church in the past. People were allowed to participate in sermons, but the content was forever unknown to them.

Griller og Rumler-Korinek argues

”Deficiencies in transparency are hampering the emergence of a European public debate and the citizens` ability to judge on governmental action in a well-founded manner”

(Griller og Rumler-Korinek 2004:15).

I will argue that the information asymmetry gives different degrees of transparency between different language groups, enhancing some language groups, hindering others in their judgements and analysis of political decisions. The information asymmetry gives therefore different language groups unequal opportunities of participation. A crucial question to ask is the consequences of deliberate standardization of language regimes in the EU political institutions before a visible success of foreign language learning is a fact in educational systems of each member state. The success of foreign language learning can to some extent be measured from statistics found in Eurobarometer surveys. Quite a substantial number of citizens in most member states are not proficient in one of the most central languages in the Union (Eurobarometer 2006a). Less than 40 percent of the populations of several member states say they master the English language. The trend for French and German is not more promising in most parts of Europe (Eurobarometer 64.3, 2005).

Contrary, van Els argues that multilingual regimes lead to low quality communication (2001, 2005: 274-275). High degree of language diversification creates new problems of transparency: Lack of qualified translators and equipment, and coordination problems may yield low quality translations, Inaccurate and ambiguous translations compared to the original texts can also give to low legitimacy of translated texts. Limited recourses and time and cost efficiency sometimes lead DG Translation to shorten texts fitting their format², increasing the possibility of inaccurate, ambiguous and superficial translations. Some surveys indicate that many bilingual readers prefer reading original texts instead of their mother tongue

² Information confirmed in interview with DG ...

translations³, probably because they find it more accurate. The question in a democratic multilingual system is, however, if some communication with all might be better than perfect communication with only a few (van Parijs 2004).

The European Union multilingual project faces therefore the challenge of balancing between two language strategies: Language standardisation and diversification. All these challenges visible in EU language policies make an urgent cry for a concise analysis of causes of variation between website language regimes and short and long term consequences on transparency and participation in a multilingual deliberative democracy. The next sections will first define some core concepts, and then map COMM and DG website language regimes, before outlining a brief overview of historical and structural preconditions to language regime formation in the EU.

1.3. Defining key concepts: Language regime and language availability

Three core concepts need to be defined before a further investigation and discussion can take place, all three entangled together: Language regime, standardization and diversification. In his most specific definition, Jonathan Pool defines language regime as “a set of official languages and a set of rules permitting complete mutual comprehension in a “deliberation” among representatives of language groups” (Pool 1996: 159). However, language regimes are not always made in “complete mutual comprehension” with all official language groups. It is therefore possible to use Pool’s more general definition, “a set of official languages and a set of rules governing their use”. Even such a definition might be viewed as too broad in EU language regime formation. EU language regime formation does not always follow a set of official rules in language regime formation, at best a set of suggested strategies for language regime formation. Regime as a concept implies specific rules guiding the formation of multilingual language structures. Another concept used by Abram de Swaan, language constellation, defines a specific set of language structures (de Swaan 2001), not indicating any specific rules guiding number of languages. However, in EU language regime formation language regime is a well established concept. A deviation from the official concept does not seem to bring new insight to the matter. An even broader and more general definition of language regime is therefore presented. A language regime is simply the number of languages in a specific domain. In this context, domain is either a specific territory or a political system or institution, specified in this case as COMM and DG website language regimes. Language

³ Information received in interview with DG Translation and Lind Jones DG info society.

regime (or constellation) and language availability might be viewed as being the opposite sides of the same coin. Language availability is the amount of languages accessible for all citizens in a specific domain, thus prompting citizen's ability to access information in a specific domain.

1.4. Defining Standardization and Diversification

A related concept is standardization, defining a process towards one standard for communication. One of Rokkan's definitions of standardization⁴ is the process towards a single language used in communication within a given territory (Flora et al. 1999; Rokkan 1987). David Laitin transforms Weber's concept rationalization thus defining language rationalization as "the authoritative imposition of a single language for educational and administrative communication" (2000: 151), emphasising the use of only one single language to fit the definition. Language unification, implicitly stated by Wright (2001: 35) as "the process of creating linguistic homogeneity within the population", is also used by de Swaan describing the same process of limiting number of languages in state affairs (2001). Rokkan used the latter concept several times as an interchangeable concept of standardization (Flora et al. 1999: 145). In this thesis however, standardization does not necessarily imply only one single language, but different degree of standardization. The theoretical implications of the concept will be dealt with in the theoretical framework later.

The opposite concept however, diversification, related to diversity and multilingualism, also called plurilingualism by some scholars (van Els 2001; Wright 2000), describes language regimes with several languages within its constellation. Ammon does not specify his definition more than language diversity (2006: 322), while de Swaan uses constellation mentioned earlier to describe a multilingual language regime (de Swaan 2001: 1-2). Language standardization and diversification will therefore be defined in two different ways: Both a process moving from one language regime to another and as a fixed language regime at a certain point in time. Both the process and the fixed language regime are measured on a continuum ranging from 1 to 23 official languages in the Union. The process is moving from either high to low degree of diversity (standardization) or from low to high degree of diversity (diversification). As a fixed language regime the two concepts will be defined as placed either as low degree of diversity (standardization) or high degree of diversity (diversification). De

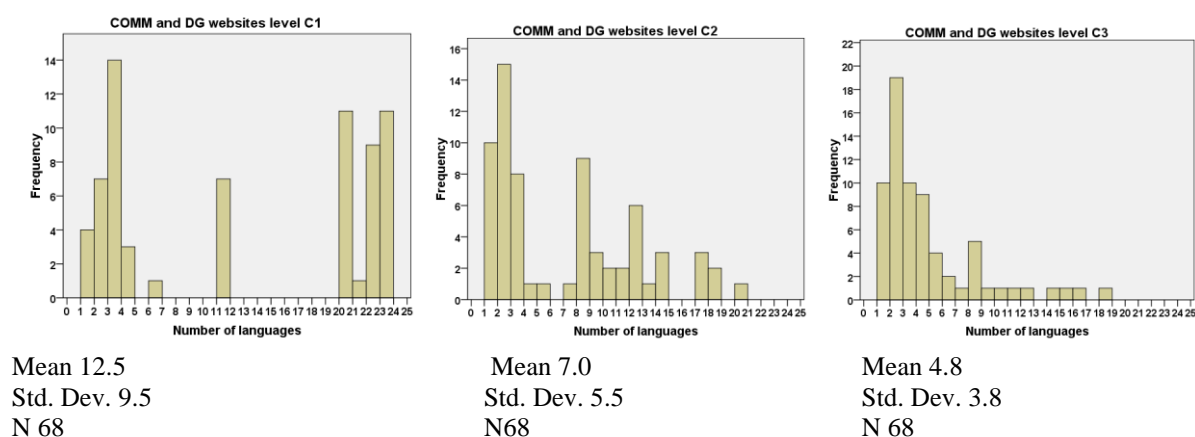
⁴ Standardization is also used by Rokkan to describe the process of developing grammatical and orthographical standards in a specific language (Flora et al. 1999).

Swaan divides language constellations into four levels, two related to civil society and two linked to EU institutions: National society, civic society in the Union, the official and public institutional level in the EU, and the internal institutional level in the Union (2001: 166). Websites tend to involve several of these levels, although the official and public institutional level is the one level focused on in the analysis. Two other key concepts throughout the analysis, the efficiency and commitment mechanisms, will be defined after a definitional elaboration on the logic of mechanisms.

2. Mapping COMM and DG website language regimes

The striking contrast between EU asymmetric language regimes and the strict language regimes of most member states in the Union makes these differences puzzling in a comparative perspective. The basic research question is then: what are the causes of variation in language availability between different units on their websites? To better understand the complete language regime on each website, the website structure is divided into three levels reflecting the levels on the website structure measured by “clicks” into the website structure. Level C1 is the homepage of each unit, moving into C2 and C3 by “clicking” deeper into the website structure. Figures 3-5 show the distribution of language regimes for COMM and DG websites at levels C1-C3 by the use of frequencies.

Figure 3: COMM and DG website language regimes level C1-C3⁵



The first impression of all COMM and DG websites at level C1 is a systematic, bipolar or tripolar structure of different language regimes (figure 3). The variation in language availability is quite substantial between units, and makes three distinct clusters: those between 1-4 languages, those between 20-23 languages, and a few units placed in the middle, thus dividing language regimes into three different categories of low (1-8 languages)⁶, medium (9-16 languages), and high, containing 17-23 languages⁷. The main cluster with high diversity seems to be websites fulfilling the official multilingual policy in the Union, with high commitment to multilingualism. The other main cluster centred at low on the other hand,

⁵ For some reason SPSS does not allow me to put the bar on top of the value it belongs to, but between two values. The bar placed between 1 and 2 are therefore those units with a unitary language regime of one language.
⁶ As expected the most used languages in regimes containing one to four languages are English, French, German, and the language of the COMM or DG leader.

⁷ Languages not part of the language regime termed high (20-23 Languages) are for the most part Gaelic, Bulgarian and/or the Check language, and sometimes Rumanian, all languages annexed to the official language structure of the Union in 2007.

seems to display websites with high degree of standardization and lower commitment to multilingualism. The small cluster in the centre is the old language regime of EU-15 counting 11 languages, and is hard to define in a efficiency-commitment perspective. How is it possible for one institution to have such a variety of language regimes in one political structure?

There is a remarkable difference already moving one level down in the website structure. At C2 it is possible to see a different pattern away from commitment to stronger degree of efficiency (figure 3). Language regimes placed in three very distinct and separate groups at C1, have been drawn towards the centre at C2, with no units fulfilling the official language policy of 23 languages. Most websites with high degree of diversification at C1, display substantial degree of standardisation at C2, producing two camel domes. Half of the language regimes are centred around the first dome with very few languages (low), and the other spread out counting many types of regimes (both medium and high), each with lower frequency. A closer look at the second camel dome seems to display three smaller domes on top of the big one, all distinct from each other. Nevertheless, although almost 20 % of the units still belong to the mid-category, and one unit keeps high diversity, the one common denominator at C2 is increased or maintained standardization, with a few websites still being quite multilingual.

At level C3 this pattern is enhanced even further, and shows that all websites have increased standardization (figure 3). The term asymmetry fits therefore even better to this level, figuring a structure close to only one dome of very restricted language regimes at the left, covering approximately 80% of all language regimes. Most websites have therefore changed from high degree of diversification to increased standardization moving deeper into the website structure. However, 20% of the language regimes still keep a certain degree of diversification, consisting of several single cases with different language regimes. The three small domes are now smeared out counting only single cases, with the highest language regime containing 18 languages. The only word fitting the overall characteristic for C3 is: therefore standardization. This is also confirmed by the decrease in Mean and Standard Deviation at both C2 and C3, indicating a more coherent language regime deeper down in the website structure.

Several respondents emphasize the autonomy of each COMM and DG in language regime formation. Decentralization of power and control of all Commissioner and DG websites is one of the key factors understanding the language use on the Commission websites. At the level of the Commissioner`s personal websites (COMM website), each cabinet will be responsible for

their own site, structuring the language availability on their sites based on their own choice. The same is with the websites related to each DG (DG website), structured after the needs identified by the DG leader and his or her staff. Changes made on COMM or DG websites in the amount of languages available are made based on their own preferences and evaluations. It is up to each cabinet and DG to choose what and how much translation they wish to have on their website and to cost it⁸. This is stated by other respondents saying that the websites tend to develop in an organic way, with no strict centralized enforcement of either the website or the language system used on the website. The decentralized website is based on the principle of communication: Communicating your message to the right audience. Each DG has autonomy on their websites, also related to translation expenses. Departments are encouraged to communicate and cooperate, and the Commission is now working to ensure that its web communication is more user-centred than in the past⁹.

There is no official cooperation among the different cabinets in how they structure their websites, including their choice of languages. Neither do they feel obliged to follow specific regulations in forming the language policy on their website. There is however a strong suggestion to use all official languages, especially stressed by COMM Wallström and COMM Orban. Political will and suggestions to follow the rules is therefore the only obligations guiding the language policy on the different websites. Seven respondents said there was a distinction between the legal obligations of communicating official documents in all languages and multilingual language regime formation on websites¹⁰. People seem to be afraid of explicitly saying that all working languages are to be used on the websites, and therefore find it a bit dangerous¹¹. The reasons for the structures seen in the histograms seem complex. A short investigation of which languages used on each language regime might reveal interesting clues. So far the comparisons made include all COMMs and DGs. To better understand the different characteristics displayed by COMM and DG language regimes, a closer look at each of them is needed. It is quite interesting to identify differences in language regimes between political and bureaucratic levels in EU institutions at all three levels C1-C3, beginning with the political COMM websites.

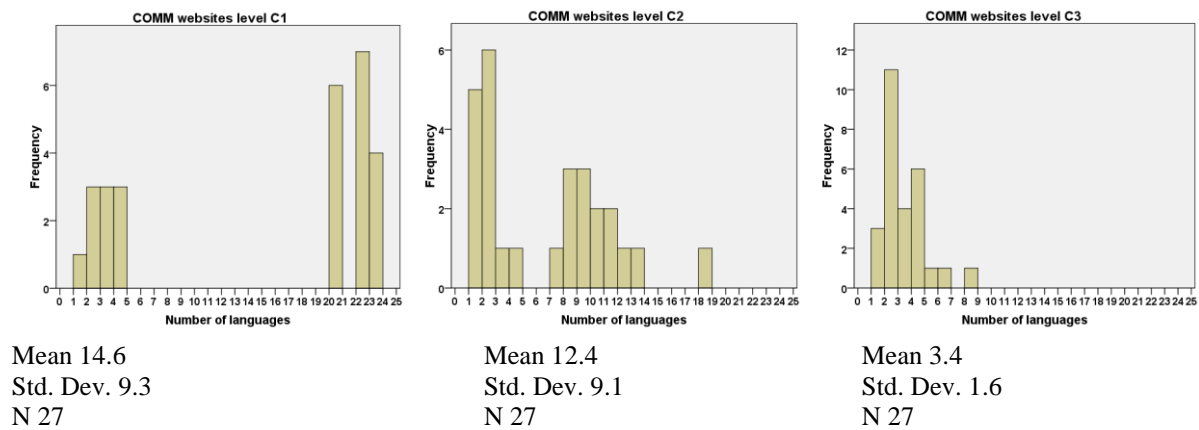
⁸ Interview with Bruno Fetelian DG Communication.

⁹ In an interview with Tytti Granqvist, Osta Werner and Jonathan Stockwell DG Communication.

¹⁰ Four respondents said that Regulation No. 1 (1958) is the legal obligation of language regimes in general, however, seven of the respondents made a clear distinction between official documents and websites.

¹¹ Interview with Hanna Hinrikus personal assistant to VP Kallas. She did not know of official contact between web coordinators or web masters.

Figure 4: COMM website language regimes level C1-C3



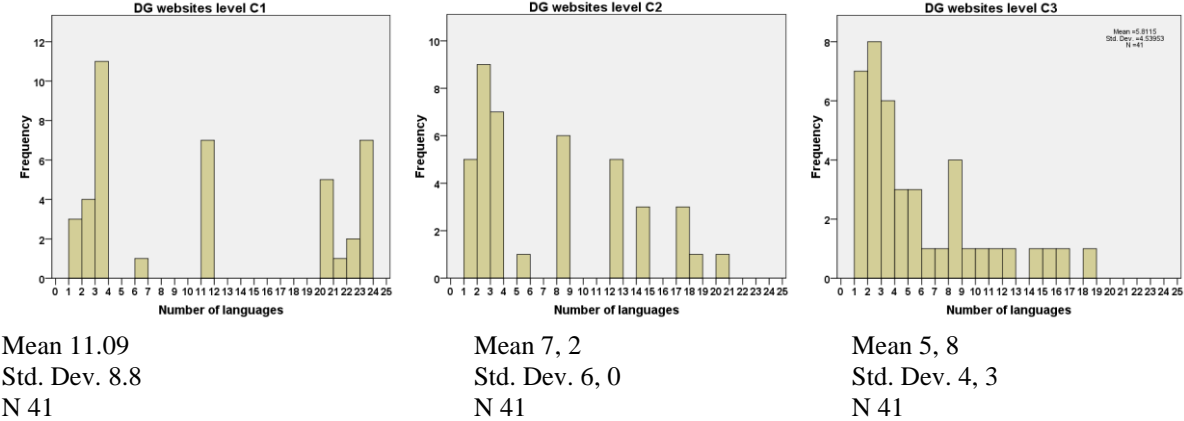
Although the frequencies at C1 and C2 for COMM-only are very different, the Mean and Standard Deviation only show a marginal decrease. At C3 however, both the Mean and Standard Deviation have a marked decrease, indicating more coherent language regimes at C3. The COMM websites at C1 display the most bipolar structure possible, with no units placed in the mid range (figure 4), thus all websites without any exceptions are centred at either low or high. Again two very distinct language structures are seen of either standardization or diversification of language availability. The great majority of language regimes are highly multilingual, committed to the official multilingual policy. The rest, approximately 30%, display very restricted language regimes from 1 to 4 languages. The bipolar structure at C1 is quite systematic and challenging in the eyes of a scientist.

Although COMM websites still display a camel dome at C2, the domes are much closer together, indicating a strong degree of standardization at this level, increasing standardization (figure 4). Not only are they closer together, but all multilingual regimes have moved to a more restrictive language regime. This indicates that all websites increase standardization at the cost of diversification. All language regimes except one, are grouped as either low or medium, and there is seen an increase in frequency of the two most restricted language regimes. There is still one website that tends to high diversity. This structure resembles to some degree the bar chart displayed for COMM and DG websites at C2 (figure 4), and it might be described as a more consistent miniature of the big COMM and DG structure.

The last level C3 continues the process of standardization (figure 4). There is almost a complete clustering around low, with a few exceptions falling slightly outside. The variation ranges from one to eight languages, with the maximum language regime of 8 languages.

Nevertheless, most language regimes fall between 1-4 languages. The variation in language regimes is most substantial at level C1, decreasing moving deeper into the website structure. Deeper down in the website structure, the more technical and specialized information is placed, for special target groups, increasing the gradual standardization of absolutely all units as they move into level C2 and C3, gradually minimizing the difference between units. At lowest level standardization is the only game in town, with no websites committed to multilingualism. Adding the information of substantial decrease in Mean and Standard Deviation at C3, confirms the evident process of standardization. A closer look at DG websites will give a better understanding whether it is possible to expect bureaucratic websites to share similar patterns on each level.

Figure 5: DG website language regimes level C1-C3



The Mean and Standard Deviation at C1 are lower than in the COMM-only model, also with a smaller decrease at the two other levels compared to COMM-only. DGs seem therefore to have greater variation in language regimes at both C2 and C3. Equal to COMM and DG websites figure 3 at C1, there is a tripolar structure, with only one exception (figure 5). This tripolar structure is not seen to the same degree on COMM websites. The middle category is basically six DGs following the old language regime of EU-15, before the last two annexations, and contains therefore the eleven official languages at the time (before 2004). Historically this inheritance from the past¹², represent the 11 official languages from the old EU-15, annexed between 1951 and 1995. Geographically the middle-category language regime resembles the old East-West-cleavage, with the exceptions of Cyprus and Malta. Therefore, none of the languages of the former Eastern Europe is included in this category,

¹² In interview Bruno Fetelian DG Communication.

since all these states were annexed (as late as) in 2004 and 2007. None of the COMMS have an 11-language regime. The two clusters at each end of the continuum, similar to COMM websites, tend to move towards either high degree of standardization or diversification. DGs have substantially more language regimes with three languages in relative comparison to the bar chart of COMM websites at C1. Another difference is the high degree of multilingual language regimes for COMMs compared to DGs at C1.

At level C2, the bureaucratic websites (figure 5) seem to be more multilingual than the political websites at lower levels (figure 4). DG websites at C2 is somewhat difficult to interpret, since there is a lack of systematic clustering, but two things can with certainty be pointed out. There is a very asymmetric structure, with no or few language regimes in category high, and an increased frequency of more restricted language regimes. At the same time the strongest clustering is seen around language regimes termed low. The peaks seen in DG frequencies are the peaks visible in COMM and DG frequency distribution (figure 3), not visible on COMM only (figure 4). Overall, DG language regimes at C2 are more multilingual and more committed to multilingualism than COMMs, a reversed process from the one seen at C1. It will therefore be interesting to see if the process will continue at the next level.

Bureaucratic language regimes show several different patterns from political language regimes. Comparing COMM and DG websites at C3, the difference in language diversification is increased even further in favour of DGs (figures 4 and 5). However, the last table at C3 shows an increased standardization compared to C2, also levelling out the many domes seen at C2. Compared to the marked standardization for COMMs at C3, the standardization is less for DGs, with a wide range of single website language regimes with moderate to high diversification. The table also shows that DGs have higher individuality of language regimes compared to COMMs, contrary to what would be expected, with a variety of multilingual language regimes. Figures 3-5 show striking differences in language regimes between websites at all levels. However, the major similarity and the major trend among all websites is standardization, moving deeper into the website structure. Nevertheless, bureaucratic language regimes have a higher tendency to diversification at lower levels than political language regimes. At first levels political websites are more committed to multilingualism than bureaucrats, although the bipolar structure of both standardization and commitment to multilingualism is evident, making it hard to estimate the exact difference. However, moving deeper into the website bureaucrats seem to display higher degree of

diversification and commitment to multilingualism. A common feature between all websites is that standardization in most cases include more than one language regime. This fact shows that EU language regime formation is not comparable at this stage to the standardization experienced by most nation states during their state and nation building. Although many websites are quite standardized, most of them engage in a certain degree of commitment to multilingualism. The major question is then: what are the reasons for these bipolarities, camel domes and asymmetries seen between COMM and DG websites at different levels? What are the causes of variation in COMM and DG website language regimes? The question will be addressed by using interviews and multivariate regression analysis, and the two diverging mechanisms efficiency and commitment. The next sections will outline the theoretical framework of efficiency and commitment linked to state development and European integration.

3. Historical and structural preconditions for language regime formation

Mechanisms seem to be triggered inside the big and invisible historical lines and structures of European integration (Elster 1998; Pierson 2003: 177). Pierson argues how causes and outcomes of different “temporal structures” have different pace and rhythm. Long causal processes might be accompanied by quick outcomes, or long outcomes might follow long causal processes. The developments of language regimes seem to involve two types of slow moving causal processes (2003: 181-187). First, there exist cumulative or incremental causes that might lead to very slow changes over time, not very visible, but still very powerful. The second type of slow moving causes, threshold effects, are very slow processes not causing much change before reaching a special threshold or tipping point changing the force or direction of causal processes, again challenging what Pierson calls “temporal structures” like language or language practice (Laitin 1997; 1993; 1988; de Swaan 2001; 1993). The history of language regimes in the EU institutions is a mix of incremental processes of official and unofficial language practices within institutions, and quick/leaping changes of annexations of new languages, together changing the premises for the language regime of the Union. Furthermore, these changes determine the possibilities for the triggering of the two efficiency and commitment mechanisms forming language regimes in the union.

There are three preconditions that influence the relationship between variables and the efficiency and commitment mechanisms thus forming website language regimes. The first condition is the annexation of new member state languages that has compelled changes in language regimes. Already before the annexations in 1973 there had been an office for English language, stating the influence of English in the Union before this period. However, the annexation of UK and Ireland in 1973 created a threshold effect strengthening the position of English at the cost of French in the Union¹³. The impact of the annexations of the Scandinavian member states in 1995 was even greater, because it placed English as the most spoken foreign language, thus altering the place of French compared to English in communication even within the EU institutions. Many scholars argue that these annexations changed the prominent place of French in the language regime as the dominant language, towards a process that will lead to English as a lingua franca (van Els 2001; van Parijs 2004, de Swaan 2001). Later the annexations of Eastern Europe member states altered the hierarchy of foreign languages furthermore, since many of these states preferred German as their first

¹³ High Level Group on Multilingualism, on behalf of the European Commission, final report 2007. The group was established in 2006 based on the new multilingual strategy set forth by the Commission’s Communication A new framework strategy for multilingualism (November 2005).

foreign language, thus weakening the strength of French even more. This process has led the way for English as the dominant working language in the internal and external communication in the Union.

Although German language has strengthened its position in number of speakers, several bureaucrats in the Commission mentioned a general decrease of the use of German language in its institution¹⁴. There has been an increased interest among German speaking member states to restore the position of German as a European language lost after Second World War, visible in a more direct and confronting language policy. This is exemplified by the German-Finnish conflict for which languages to be spoken during the Finnish Presidency during certain meetings. Looking back at the list of new and old official member languages, and the history of each consolidated nation state language related to institutionalized language rights, it is not very surprising that EU continue their official multilingual policy. These old nation state language structures tied to national educational and welfare systems, and used in the national political system, even closely knitted to economic activity. Changes in EU policy of language regime formation will by necessity bring different consequences to each member state (Wise 2006). These historical language structures are also spurred by the new human-rights and fairness perspective on language questions (Grin 2007), some claiming that language is a human right (Creech 2004 129 Charter of Fundamental Rights of the European Union 2000).

The second precondition is related to the increased complexity caused by new member languages in the EU institutions. De Swaan argues that one characteristic of language is “linguistic inertia”, language constellations develop slower than political constellations and their needs (2001: 17) and therefore lag behind political structures. The incremental complexity of extended language regimes in the Union, together with increased information complexity over time, due to new competencies, has changed the conditions for language regime maintenance. The incremental complexity, together with the “linguistic inertia” in EU institutions has created a tipping point felt by many COMMs that has led to decreased number of languages. Institution inertia builds up pressure without immediate effect before a critical level is reached changing the options available and expectations held by actors involved (Pierson 2003:184; de Swaan 2001). The balance between standardization and the

¹⁴ Several respondents mentioned the tendency of the declining use of German in the institutions without statistical references other than their own impressions.

commitment to maintain high degree of multilingualism has shown to be a struggle for several COMM and DG websites. The heritage of 23 official languages after the annexation in 2007¹⁵ led to the ambitious political experiment of officially full multilingualism. However, several unit websites have experienced a recoiling of the strategy at the end of the Barroso Presidency, thus radically standardizing their language regimes. Four COMMs reduced their language regime from 20 to four languages at the end of their term.

The third precondition is linked to condition two, emphasizing consequences arising because of tension between EU official language philosophy and political and administrative reality. Several respondents answered that the last annexation and the appointment of a Commissioner of multilingualism in 2007 spurred a new optimism in the multilingual strategy also forming very multilingual website regimes. Nevertheless, at the end of the first Barroso Commission several units found these multilingual website regimes too ambitious, complex, costly and hard to organize¹⁶. The result was new and more standardized language regimes, several including only four languages. COMM Kallas had this experience by changing his website language regime from 20 to four, mostly because of the felt complexity in such a language regime of 20 languages. Hinrikus, Kallas personal assistant, states that the change in language regime on their website made it possible to do most translation work themselves, by using internal personnel in their cabinet, without the cost and work consuming task of involving DG Translation. Abram de Swaan argues “the more languages the more English” (2001: 244-175), a very profound quotation describing the problems of time and cost efficiency when language regimes get too complex. The cost of full multilingual communication is felt to be too big compared to the communication output. These changes will serve as background variables or preconditions setting the stage for further investigation into the causes of language regime formation.

¹⁵ Gaelic and Bulgarian were recognized as official languages in ... 2007.

¹⁶ Secretary of Vice President Kallas, Hanna Hinrikus,

4. Mechanisms and language

In the rest of the thesis there are two mechanisms that are assumed to exist between cause and effect, efficiency and commitment. Before describing the relationship between the two, a definition of mechanisms is needed. A number of scholars have emphasized different characteristics when defining mechanisms. Hedström and Swedberg stress that mechanisms provide “analytical constructs” and “hypothetical links” not visible to the human eye between the empirical events studied. (Hedström and Swedberg 1998: 13, in Mahoney 2003). Bennett and George emphasize close and detailed observation examining how the causal mechanisms operate, and which intervening variables are involved (Bennet and George 2004: 21). They state that even formal models able to predict outcomes with a certain degree of accuracy must explain how causal mechanisms operate in predicted cases (ibid: 208).

In our example, mechanisms are not visible *per se*. However, accumulation of empirical evidence related to a consistent theoretical framework will help depicting the existence of such mechanisms in language regime formation and ascribe its effect. King, Kohane and Verba distinguish between causal mechanisms and causal effects (1994: 85-87). They argue that causal mechanisms are a “set of `causal mechanisms` posited to exist between cause and effect”, and ads that all science has to “specify how the effects are exerted” (1994: 85). In their view causal effect is the difference in systematic effect on the independent variable when the dependent variable takes on two different values (ibid: 81-82). Mechanisms are then hypothetical links that are thought to exist between cause and effect specifying how the effects are exerted. This definition is consistent with what most scientists want: controlled and well known conditions that can easily determine the exact cause and effect.

However, Elster gives a definition that imposes problems of measurement for all scientists when he defines mechanisms as “frequently occurring and easily recognizable causal patterns that are triggered under generally unknown conditions or with indeterminate consequences” (Elster 1998:45). Since these mechanisms are “triggered under”... “unknown conditions or with indeterminate consequences”, it will either be difficult to determine when they will be triggered (type A) or estimate the effect when they are been triggered (type B). Type A mechanisms, causal chains that are mutually exclusive, makes it difficult to know which mechanism that will be triggered in different situations (Ibid: 46-50). Type B mechanisms on the other hand, will be triggered simultaneously, with opposite effects, and makes it hard to

predict the net effect of the two mechanisms. Separate effects are robust, but not their net effects. However, he states that these causal patterns are easy to detect, although they are invisible. Furthermore, Cowen interprets social mechanisms "... as rational-choice accounts of how a specified combination of preferences and constraints can give rise to more complex social outcomes" (Cowen 1998: 125, in Mahoney 2003). Tilly adds that mechanisms are "events that alter relations among some specified set of elements" (Tilly, not in print, in Mahoney 2003). These "references", "constraints" and "events" trigger social outcomes that alter specific elements and "give rise to complex social outcomes". It is therefore expected that these mechanisms will alter existing social structures.

Mechanisms are thus defined as hypothetical links between cause and effect that consist of references, constraints or events that can be triggered under unknown conditions or with indeterminate consequences, and lead to new complex social outcomes. The new complex social outcomes in this case are new language regimes. Under what conditions will specific causal mechanisms be triggered or activated, and thus lead to specific outcomes changing website language regimes? Which mechanisms are triggered in EU language regime formation, what variables seem to trigger them, and what are the possible effects? These questions will be addressed in the analysis.

4.1. How efficiency and commitment work

Two concepts are mentioned in different settings describing EU language regime formation: efficiency¹⁷ (Laitin 1997; Pool 1996) and commitment (Creech 2005; European Commission 2008b; Ginsburgh and Weber 2005; Group of Intellectuals 2008¹⁸; Orban 2008a and 2008c; Wright 2000). The theory assumes that these two concepts are two mechanisms triggered by different variables forming different language regimes. The argument of website language regime formation is quite simple. Each unit has a certain amount of money and recourses it is willing to spend on maintaining its multilingual website language regime, thus maximizing the goal of quality communication¹⁹. However, the amount of money each unit is willing to

¹⁷ Most respondents were quite concerned about efficiency when describing reasons for their less multilingual language regimes. See http://europa.eu/abouteuropa/faq/index_en.htm for an overview on EU language regime strategy in general.

¹⁸ Group of Intellectuals for Intercultural dialogue (2008), Multilingualism a Rewarding Challenge. An advisory body on multilingual questions, set up by the European Commission.

¹⁹ Receiving money for translation is a budgetary process and a matter of resources. Even though translation is not directly mentioned in the budgetary expenses, it is part of the money used for communication. Interview with Ian Andersen DG Interpretation.

spend varies between units depending on how committed the unit is to the official language policy of Council Regulation No. 1 (Council of the European Community 1958) and its need to optimize efficiency. These two mechanisms of efficiency and commitment are again triggered by characteristics found in each portfolio thus forming different website language regimes. Longman`s (1989²⁰) gives a very simple and concise concept definition of efficiency. Longman`s defines `efficiency` as “the ratio of the useful energy delivered by a dynamic system to the energy supplied to it” (1989: 219), and `efficient` is defined as something being “productive of desired effects, especially with minimum waste”. *Efficiency* is therefore defined as reducing complexity and lower time and economical costs to increase the ratio of Communication to the efforts put down in translation, thus optimizing the desired effect of communication with minimum waste of recourses. A simplified definition of efficiency used throughout the analysis is thus highest possible communication output to the lowest possible cost.

Contrary to this mechanism Longman`s defines `commitment` as “a loyalty to a system of thought or action” (Longman 1989: 135). *Commitment* will then be defined as being loyal to the multilingual language regime of 23 languages as stated in Regulation No. 1 (Council 1958). A simplified definition is commitment and loyalty to the official policy of multilingualism. Hence efficiency and commitment interact in different environments, and are influenced by several variables related to portfolio characteristics, thus forming different website language regimes. Before analysing COMM and DG websites, there will be a presentation of the theoretical framework of efficiency and commitment in state language development and website language regimes more specifically.

4.2. Efficiency and commitment in state language development

Rokkan states that unitary language structures are found in successful centres with dominant central languages. Without strong peripheral languages to compete with the central language, it is easy for central elites to increase efficiency in communication by standardizing central language in state structures (Flora et al. 1999: 174-76). Standardization of central language will optimize efficiency, the highest communication output to the lowest possible cost, for several reasons. Standardization gives the central elite no need for translation costs or education in other than the central language to maintain communication with peripheral

²⁰ Longman Family Dictionary (1989), hereby called Longman`s, does not contain a specific author.

language communities. The centre is able to receive high quality communication in its own language to the lowest possible cost. At the same time there is no need for commitment, being loyal to a multilingual language regime of other peripheral languages, since no speech communities are strong enough to maintain strong opposition.

David Laitin examines the same process of systematic decrease in number of languages in political institutions mentioned by Rokkan, thus changing political opportunities of language groups. He borrows Weber's concept rationalization to create a new concept, language rationalization, to describe the similar process of standardization. Rationalization in weberian terms is "efficient and orderly rule" (Laitin 1997: 280), and therefore closely tied to the process of simplifying communication through standardization of the language of the central administration. Laitin also recognizes the importance of efficiency by stating that "State regulations can be disseminated more efficiently if translations are not necessary for compliance to take place" (Laitin 1997: 280). Although efficiency, highest communication output to the lowest possible cost, seems to be evident in state communication, efficiency is not the only solution in language regime development. In certain state developments the most natural language regime formation will be built on commitment between several language groups of a multilingual language regime.

Cost does not only mean money, it might as well include ambiguities, misinterpretations and time consumption (van Els 2001, 2005; van Parijs 2004). The cost of lower communication output because of many different translations with ambiguous text differences are risky business in state regulations (Wright 2000). This challenge is not at all impossible, but quite time consuming, stealing resources from other sectors important in state development. Why will any state use time and resources on a system not giving optimal communication output in an efficiency perspective? Efficiency does not consider strength of peripheral languages, nor their distinction or degree of identity. Neither does efficiency take into account the communication cost of regional speech communities not familiar to central language standard, an important point to the analysis. The communication cost of having no or limited skills in central language include an asymmetric lack of transparency based on different availability of information in peripheral languages in the political system. Although the central elite will find standardization to yield the most efficient communication output, regional speech communities find the same language standardization quite inefficient and straight out unsatisfactory. The solution is a commitment between language groups being loyal to a

multilingual language regime including the most prominent language groups. Commitment will decrease efficiency in communication for central elite, and increase efficiency for peripheral language groups. It is thus better with a certain level of communication with all, than complete communication with a few.

Rokkan also mentioned multilingual language structures caused by strong peripheral languages or languages not part of central elite competing to become central standards. In multilingual structures the possibility of maximizing efficiency in communication by language standardization is drastically lower, since competing languages will hamper a process towards standardization of one central language (Flora et al 1999: 174-176). Instead there will be a commitment between language groups to form a multilingual language regime. Competing languages would then be able to influence language structures in central institutions, thus hindering the central elites to increase efficiency.

4.3. Efficiency and commitment in European Union website language regimes

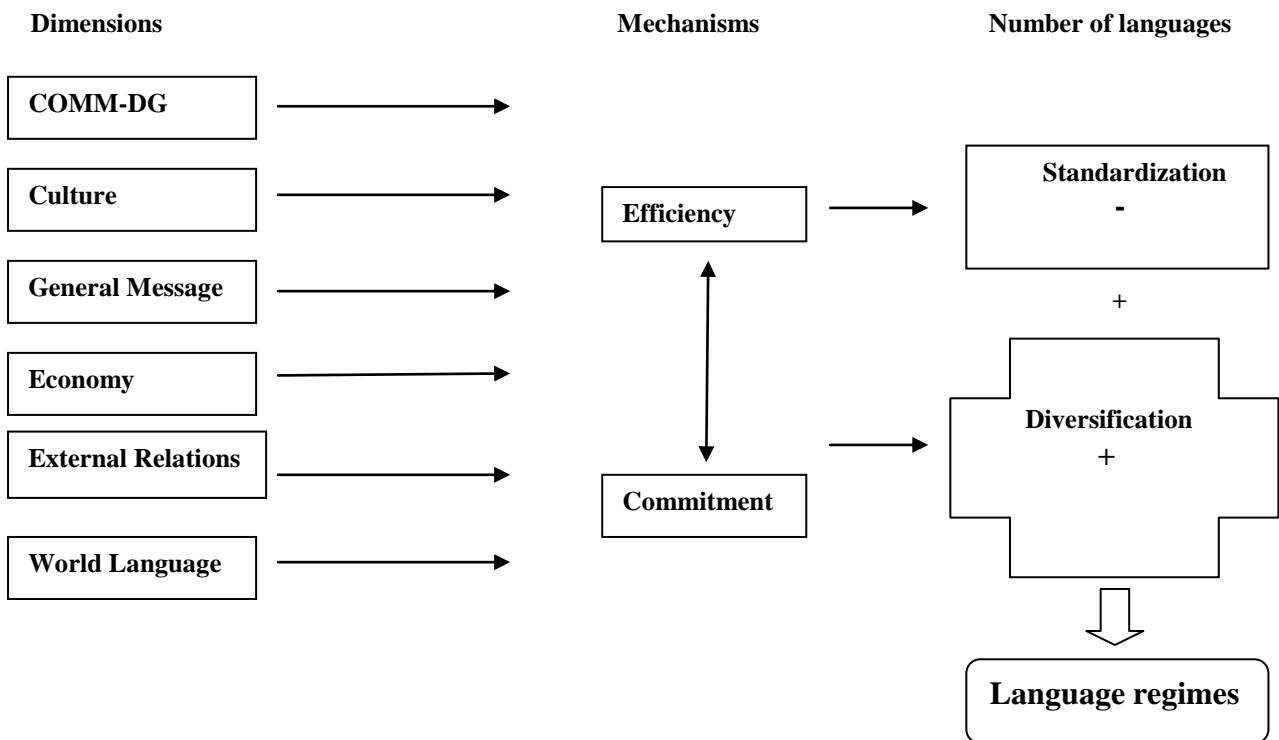
There are several problems to be aware of related to efficiency in the Union. Speakers connected to many languages (*plurality*) with substantial number of speakers (*centrality*) in a language regime have high communication potential. Every language learner will acquire the language with the highest communication potential, thus increasing efficiency (de Swaan 1993: 246). The EU consists of a substantial number of citizens with language constellations with both low centrality and plurality, disconnected from the most central languages. Citizens with language vocabularies disconnected from the World Languages will not enhance the information and create unequal transparency for different language groups. Thus, language standardization without mediation will lead to low transparency and keep many people outside the realm of political participation. Language regime formation will therefore have to address the challenges of connecting language regimes with less central and plural languages, thus being committed to a multilingual language regime, and still uphold efficiency, highest possible communication output to the lowest possible cost. It is therefore a need for a deeper investigation into the relationship between efficiency and commitment in European integration.

How does efficiency and commitment affect website language regimes? Each language regime constitutes a language asymmetry more or less transparent, enhancing or decreasing participation on each website. Both strong standardization and high degree of multilingualism

display several weaknesses. High degree of multilingualism will by necessity lead to lower degree of complexity and paradoxically enough generally lower access to overall information. This is true because high translation costs will need more radical priorities of which information to include on the website, and thus exclude number of texts in favour of number of translations. The end result is lower degree of overall transparency. Hence, portfolio characteristics triggering the efficiency and commitment mechanisms will lead to different language regimes with different language asymmetries, and thus lead to different degrees of transparency and participation. To examine causes of variation in website language regimes is therefore quite important giving insight of how to optimize language regimes to maximize transparency and participation for as many citizens as possible.

Although the thesis gives a brief historical and structural account of EU integration and language regime change, the main concern of the thesis is the theoretical framework investigating eight dimensions triggering the two mechanisms efficiency and commitment and lead to different degrees of standardization or diversification. The dimensions expected to trigger the two mechanisms are the *Political-Bureaucratic dimension*, distinguishing between political and bureaucratic regimes, the *Cultural dimension* associated with diversity rooted in territorial/regional differences, and the *Generality dimension* related to general opposed to specific messages. The next dimensions are the *Economic dimension* of economic exchange and transactions, the *Externality dimension* related to external communication with outside states, and *World Language*, associated with central language formation. Another dimension is the *Dynamic-Static* dimension, describing the rhythm and pace of information, whether dynamic and changing, or static. A last dimension cross cutting the seven others is the dimension *Levels* related to structural levels and stages. Figure 3 visualizes how the dimensions above trigger efficiency or commitment and lead to either standardization or diversification. The figure does not integrate how these processes relate to levels.

Figure 3: Dimensions triggering mechanisms causing language regime change



Each dimension has certain characteristics that are more likely to trigger either efficiency or commitment thus causing language regime change. A dimension might also trigger both efficiency and commitment, thus leaving the net effect small or unspecified. A dimension cross cutting all the mentioned variables below, also one of three pillars in EU language regime formation is levels. This dimension is integrated into the discussion of all the other dimensions. The next sections will build a theoretical framework linking the triggering of commitment and efficiency to each dimension and language regime formation.

4.3.1. COMM and DG: Political and bureaucratic language regimes

In his comparative analysis of the European Union and India, David Laitin (1997) argues that politicians and bureaucrats in India after its independence had different incentives thus affecting state language regime formation. The *political-bureaucratic* dimension in our theoretical framework, expects politicians and bureaucrats to display different language regimes, interacting with both dimensions of *Generality* and *Levels*. Politicians will show higher degree of diversity than bureaucrats at first level because it is expected that general policy messages will be situated at the top level, since general policy statements and information of general political interest most likely is placed highly visible to all people. Since this information of general political interest is targeted at all people, we also expect it to

be in all languages, maximizing communication and visibility of the commitment to multilingualism. Politicians will be more concerned of communicating the most important messages and the general political overview of the complete picture to as many as possible. Doing this they will use as many languages as possible communicating the message at top level, thus increasing commitment.

Furthermore, politicians are also more concerned about sustaining public trust in the multilingual policy, certainly done most effectively by a higher degree of multilingualism at the top level, at the cost of the lower levels, not available to the same degree for the whole population. Moving deeper into the website structure, political units will use quite drastic standardization that will lead to a gradual and substantial decrease in multilingualism compared to bureaucratic units. The reason is a consequence of limited recourses and political priorities of high multilingualism at top level that does not allow for multilingualism deeper down in the structure. Political regimes will therefore be less multilingual deeper down in the structure. Politicians will thus increase commitment at top level at the cost of efficiency deeper down in the structure, while bureaucrats will keep higher degree of commitment deeper down by increasing efficiency at the top level.

Regulations, Treaties and official documents will, based on the commitment to multilingualism, be translated into all languages, and most probably be archived deeper down in the website structure, and thereby increase language availability at lower levels. Consequently, this process will stem the increased standardization at lower levels. Bureaucratic regimes are more related to regulations and formal and official documents than political elites, and will therefore be more multilingual deeper into the website structure than political regimes thus triggered by commitment. The reversed situation between politicians and bureaucrats between levels is pointed out in the two hypotheses beneath.

H1 a): Politicians will keep high degree of commitment to multilingualism at the visible top level, while more concerned of increased efficiency at levels lower down.

H1 b): Bureaucrats will be less concerned about commitment at top level, being able to keep high degree of multilingualism lower down in the website structure.

4.3.2. Culture: Limited resources and diversification

In his historical analysis of the cultural dimension in European nation state development, Rokkan examines the distinctiveness and sharedness of linguistics standards (Flora et al. 1999: 125-126). Central elites in a territory met different opposition from peripheries with different cultural and linguistic backgrounds and different strength. Strong peripheries with well developed languages would challenge standardization of the central language, therefore opening up possibilities for multilingual language structures. *Culture* in European history and integration will therefore usually be associated with diversity. Thus, *the Cultural dimension*, closely related to culture, education, language communication and symbolic activity, is characterized by diversity. These characteristics will lead to generally higher degree of multilingualism. To accomplish the goal of generally high multilingualism with limited resources, there has to be made strict priorities. The most likely outcome is slightly limited diversification at top level, to be able to keep high degree of diversification at all levels. This again leads to a coherent, high degree overall multilingual regime, thus optimizing overall diversification and high degree of commitment. The goal of high overall diversification is the prime focus in the hypothesis, also emphasizing the strategy to do so.

H 2: Culture will lead to efficiency at the top level, to be able to enhance commitment in levels lower down, thus increasing the overall level of multilingualism.

4.3.3. General Message: Diversification and promotion of General Message to all

General Message is one out of three pillars in EU language regime formation structuring number of languages on each website, based on a logic different from the earlier European nation states²¹. European past shows that political messages of general character in most nation states were conducted in the standardized language of the central elite. Although the majority of nation states had several regional and local languages, the central language was used in communication with different political and bureaucratic actors and the regional population (Flora et al. 1999; Laitin 1997; de Swaan 2001). The process simplified and eased communication between central elites and regional peripheries, and optimized quality communication to the lowest cost, thus triggering the efficiency mechanism. With several languages the translation cost would increase, and the supply for quality translators would be

²¹ Most interviews emphasize the difference between general information to all citizens and specific information to special target groups. See http://europa.eu/abouteuropa/faq/index_en.htm

scarce, since the literate and bilingual regional elite was small (de Swaan 1993). Chances of ambiguities would also be higher with increased number of languages. However, the approach seen in European Union institutions is quite different. Units (COMMs and DGs), advertising general policies to all people, will most certainly be committed to high degree of multilingualism at top level, and thus show high degree of diversification.

The commitment mechanism is triggered for two reasons: First, the need by politicians and bureaucrats to show that they respect and stay loyal and committed to the principle of multilingualism as stated in Regulation No. 1 (Council of the European Community 1958), and the need to communicate general, political messages as effectively as possible to all people. *General Message* will therefore show an increased standardisation moving deeper into the website structure due to scarce and limited recourses. By prioritizing top level, there will be little recourses to keep the same degree of multilingualism at lower levels. De Swaan states that translation cost of texts produced for large audiences is low compared to the significant increase in expenditure translating the same texts into small audiences (de Swaan 2001: 45-46). His argument is related to language groups with different audiences, but the same logic can be used to examine general and specific audiences related to levels. The logic resembles the unequal exchange of languages on the websites between languages at different levels. Thus it will be more cost effective to translate general messages to all citizens into all languages than specific messages targeted at specific target groups. The same logic of efficiency creates standardization at lower levels, since less people will visit web-pages lower down in the structure. This is no scientific law however, since mechanisms have several possible outcomes. The following hypothesis states the relationship between general information and language regime formation.

H 3: General information to all people increases commitment to multilingualism.

4.3.4. Dynamic-static: Dynamic information and standardization

The historical formation of Western European nation states and the Industrial Revolution, gave increased movement of goods and people (Flora et al. 1999; Wright 2000). The new dynamic flexibility in the economic market, together with quick changes in transportation and communication created opportunities for one central standardized language for efficient communication. Earlier state structures of the old empires were quite slow compared to the new nation states after the Industrial Revolution. The same logic is expected for website

language regime formation: Dynamic-static dimension is therefore the second dimension structuring language regime formation in the Union. The increased pace of the information flow caused by the remarkable growth in computer technology, compels the need of one or few central languages for efficient communication in business and politics. Less central language groups in the Language regime do not feel satisfied with only standardization, and static information will therefore be translated into several languages increasing diversification. Thus quick and dynamic information is quite standardized to enhance efficiency, while static information not changing much over time shows high degree of diversification. The hypothesis focuses on the duality between dynamic and static information, thus triggering different mechanisms.

H 4: Dynamic information will lead to high degree of efficiency, while static information will enhance commitment to multilingualism and increased diversification.

4.3.5. Economy: Promotion of the internal market and diversification

Several economic incidents in Western European history paved the way for standardization of language. As stated, both the commercial revolution and the Industrial Revolution gave rise to expanded markets, increased immigration to central cities and movement of goods within nation state borders. The linguistic consequence was a strengthening of central languages in economy, law, and administration as the only connection point between all different language groups within a territory. In most territories standardization of central language happened at the cost of commitment to other peripheral languages. In European nation state context the most rational language strategy would be (harsh) standardization of one language, creating efficient communication lines between centre (political administration) and peripheries (citizens) in law, economy and political decision making. Nevertheless, the European Union experiences a different situation with different preconditions that lead to different language regimes²².

The core element and engine of the European project was from the beginning economic activity and exchange of goods and services. Later the economic market has developed into the internal market with its European Euro currency. One important premise for an even greater expansion of a sustainable internal market and the survival of the Euro is common

²² Commissioner of Multilingualism in Speech delivered at the University of Exeter, 17 October 2008.

trust in the Euro and the economic system. Political units related to economic activity will thus have a special role of promoting the Internal Market and the Euro to all people. Without trust in the economic cooperation and the monetary union, the possibility of an economic and monetary breakdown in the Union is impending. The Union experiences therefore a different logic in language regime formation than the old nation states, built on diversity and the commitment-mechanism. General economic messages are advertised in as many languages as possible. This is done to meet the political need of building trust in the internal market and communication needs created by the language diversity of well established, consolidated member state languages. The argument is clear: First, the political consideration is based on the wish of every member state to involve its language in communication with EU political decision making with its citizens, following commitment to multilingualism. By including all languages in important political matters, and thereby enhancing the equal importance of each nation state (language), politicians and bureaucrats related to economy will satisfy nation state language interests. This will lead to increased trust in the internal market and the Euro. The logic is clear: “If you show interest in our nation state language, and give us information in our own language, we will show interest in your monetary union, and trust your project”.

Second, but not least, the consideration of communication to all people is of equal importance. As mentioned before, the strict rationalization of language will most probably not provide all people with the information needed to trust the economic system, thus opening up for uninformed citizens, critical of the whole monetary union. Therefore, getting the information out to all citizens in their language is quite importunate, helping citizens to be informed in their own language and take competent decisions based on well informed knowledge. This indicates that loyalty to a very multilingual language regime seems to trigger the commitment mechanism, contrary to the efficiency mechanism. A commitment is made between politicians and bureaucrats related to economy on one side and citizens on the other, of a highly multilingual language regime. Politicians and bureaucrats gain in the commitment increased trust and knowledge of the internal market from the people, and citizens receive greater transparency and understanding.

However, deeper down in the website structure, political and bureaucratic regimes related to economy will experience a shift to stricter standardization following the efficiency mechanism, closely related to the standardization and rationalization stated by Rokkan and Laitin (Flora et al. 1999; Laitin 1997; Rokkan 1987). This is done because the same political

regimes related to economy have, to some degree, the important role of communicating with economic target groups in the internal market and people in other economic activity. Based on evaluations of efficiency they will then choose languages appropriate to communicate with their target groups. At the same time bureaucratic regimes play an important role of administering the economic market and its activities, also standardizing language specified at special economic target groups based on efficiency. There is little doubt that English is to be considered as a lingua franca in all economic domains in the union including the Monetary Union, although German is promoted by many as the language of industry, and French still is claiming a strong position in the institutions. English is therefore by far the most efficient language of communication in economic activity.

H5: Units related to economy advertising the economic advantages of the internal market lead to increased commitment to multilingualism.

4.3.6. External Relations: Boundary building and external communication

External Relations is closely related to boundary building and boundary maintenance. Boundary building in Western European nation states lead for the most part to standardization within each nation state (Flora et al. 1999). There were clear cultural differences between nation states most visible in different central state languages. This again led to the need for translation in state to state communication. Thus, the historical past of European nation state formation, enclosed in separate polity structures with separate cultures and languages, limit the options seen in EU language regime formation today. The language complexity in European institutions will not be less in external relations, involving new outside states and their languages. Three factors seem to create these options, two triggering commitment and one triggering efficiency, leaving the net effect unspecified. Leonard Orban emphasized the importance of promoting our multilingual character outside Europe, also mentioning the importance of multilingualism in External relations (Orban 2008). Politicians or bureaucrats related to *External Relations* will advertise and visualize the message of an EU “united in diversity” to the outside world. This is best done at the top level.

Since foreign policy for the most part is left to each nation state governments, there is also a need to be accountable to member states for the use of recourses and strategies in external communication. Therefore, both accountability and “united in diversity” will most likely trigger commitment and lead to increased diversification. However, there is a precarious need

of efficiency enhancing communication between EU and external states in foreign affairs. It is not possible to communicate with the outside world in 23 languages. Nevertheless, languages used in external communication will vary based on the official language of states and regions involved, thus triggering efficiency and lead to increased standardisation. It is therefore hard to estimate the net effect of the three factors above, since the effects have opposite directions and the effects thus will be levelled out. Nevertheless, effects of opposite direction are expected to give a small net effect.

H6: External communication with outside states triggers commitment above efficiency at top level thus giving a small net effect of diversification, and efficiency above commitment at lower levels with a small net effect of language standardization.

4.3.7. World Language: Standardization of central languages

In Western European history standardization of language by central elites led to unification of only one central language within a territory that outperformed peripheral languages (Flora et al. 1999, Laitin 1997, de Swaan 2001). Similarly there is an expectation that politicians and bureaucrats with central languages as official language will have more standardized language regimes than leaders with other languages. Thus efficiency is achieved at the cost of commitment. English will have a remarkable position without real competitors, and is therefore more susceptible to efficiency. Units from small member states and/or small member state languages will most probably choose between three different outcomes related to efficiency and commitment mechanisms: Small countries will either be more aware of multilingualism and therefore be more committed to multilingualism, since their language might be threatened by the efficiency mechanism in the EU language system as a whole, or they will seek to maximize the efficiency mechanism since their language already has lost the battle of being an active working language in the institutions.

The third option is maximizing efficiency and member state interests by creating a language regime of one or several of the most central languages and the official member state language of the leader of the political or bureaucratic unit. The complete language regime of all unit websites in the EU institutions will then be more multilingual than all units maximizing efficiency completely. Nevertheless, lower down in website structures standardization appears more drastically in units with English as official language than units related to other official languages. Distance in language unfamiliarity creates problems in translation (de Swaan

2001). Small and unfamiliar languages have often problems with lack of translators and recourses. The two mechanisms are triggered at the same time in opposite directions, thus leaving the net effect indeterminate. However, the process of standardization among leaders from the most central official languages, triggered by efficiency is expected to be the most forceful one. This will lead to a minimal decrease of language in units from the most central languages.

H 7: Member state languages affect language regime formation since leaders with a central language will lead to higher degree of standardization of language regimes than leaders with peripheral languages.

5. Data and methodology

The introduction gave several theoretical considerations for choice of data and methodology. There are also several methodological considerations that will have to be examined. The next arguments are based on methodological considerations and the type of data and information websites display. Data sources chosen must reveal information answering the research question, and it has to be measurable. How do COMM and DG websites fulfil these criteria?

5.1. Websites are available, accurate and easy to measure

First, the Commission website in general is very available and gives easy *access* to most documents available in the Commission in all languages the EU institutions are able to produce them. The estimations given by several sources²³ suggest that approximately 6 million documents are available on the europa.eu-website. The website is therefore the most accessible and probably the best indicator of the language availability of most documents in the Union. Second, the language availability is easy to *measure* on the websites compared to participating observation of meetings or work situations, or any other method or source of data. Counting the number of languages on each website is also quite simple, and gives very *accurate* and structural accounts of the exact language regime on each website compared to self assessment questionnaires or interviews of persons involved in language regime formation. Questionnaires of which languages used on each website would rely too much on subjective preferences, and be quite biased, and thus not give the accuracy as measured by counting pages manually. However, statistical methods have their limitations: Statistical tools have to be employed in the right way, on the right data, and might process data too much, thus losing accuracy, and finally: they do not speak. These four limitations will be addressed in this chapter.

As mentioned, statistical tools are not able to speak or describe causes and intentions behind results. Other qualitative methods are therefore needed. Since there are few studies analyzing the exact language availability/regime in the Union (Gehnen 1991; Haselhuber 1991; Schlossmacher 1997), and few scholars seem to emphasize the websites, this study is quite explorative, employing triangulation of both quantitative statistics and elite-interviews of cabinet members in both among COMMs and DGs.

²³ Two interviews and the websiteec.europa.eu.

5.2. Measuring language regimes: standardization and diversification

Language availability and language regime coincide as being the number of languages measured on COMM and DG websites. The two concepts are measured on a continuum ranging from 1 language to 23 official languages in the Union, and will be measured at different levels: either for each unit website, at different website levels, or in different subgroups. The dependent variable standardization and diversification is thus the scale measuring language availability ranging from one language (full standardization) to 23 languages (full diversification). Both the process of change in language regime and the fixed language regime will be discussed in this analysis.

5.3. Data

The first data collection is a content analysis, quantifying all COMM and DG website language regimes at levels C1-C3. DGs include all units having status as Directorate General or fulfil the same function as a DG. Data is extracted from 27 COMM and 41 DG websites, quantifying languages available on each website at different levels in the website structure. The second data collection was interviews conducted in Brussels, to better explain language regimes found in the website structure.

5.3.1. Data collection 1 – content analysis on COMM and DG websites

The first phase of the content analysis was a data collection based on estimating the number of languages available on each COMM and DG website at three different levels in the website structure. To be able to quantify each website language regime a framework was made dividing each website into three website levels (C1-C3). Each website level is defined as one “click” into the website structure, with each unit homepage as base level C1, and “click” one and two into the website structure as levels C2 and C3. First estimations were made by counting all languages available at each COMM and DG home page (C1). Then, moving deeper into the website structure estimations were made by measuring the number of languages available at level C2 and C3, reached by “clicking” deeper into the next levels in the website structure. These two levels C2-C3 were again divided into six different subgroups based on topics (CV, focus, portfolio, news, press release, key documents). Selection of any kind always opens up the possibility of selection bias (King, Kohane and Verba. 1994). In this case the awareness of selection bias is quite necessary, because of the extreme variation between different topics on the dependent variable (1 to 23 languages) within each unit.

Topics within the same unit vary from high degree of standardisation to high degree of diversification.

Several thousand pages were counted on all COMM and DG websites at different levels, but they did not seem to yield any systematic structures, similarities or differences as they were. When these structures were extracted, the next question was how to process all the data being able to analyse systematic differences and similarities. At homepage level C1, the complexity was not dramatic, with only one page that potentially could be translated into 23 languages. However, a substantial increase in number of pages, with different organization and structure, adding the possibility of multiplying all by 23, increased the complexity and number of pages drastically at both website level C2 and C3. Internal links to other Commission websites related to the subgroup or topic dealt with was also counted, thus opening up for borrowing within the Commission. The most obvious borrowing might be websites linked to press releases or new archive run by DG Communication. The focus was access to information on each website, and the number of languages this information would be available.

There were problems of how to quantify mixed language regime pages. Website pages often included both the translated language indicated on the language selector and English or French in the same page. This was especially the case with news and speeches, dynamic information related to flexibility. A cut point of about 50% was made to define how much of a page that had to be in the respective language to be reckoned as a translated page. In some cases, pages were mixed between several languages, with different information in each language. In these few cases the cut point was set as low as 40%. Nevertheless, the use of cut points was only employed in a few instances, and was not a major part of quantification of language regimes. The absolute majority of pages gave very high accuracy of the numbers of languages included in language regimes. Raw data, without cut points gave close to 99% accuracy, while processed data used in the regression analysis had to balance between accuracy and parsimony discussed later.

5.3.2. Data collection 2 – interviewing political elites in the Commission

After measuring the language regime of each COMM and DG website on C1-C3, a natural question arose: Why are there such variation in language availability among COMM and DG websites? Searching for reasons and variables counting for the variation of language availability on their websites, new methods were needed. “Soaking and poking” is not very likely to be achieved at master level, due to lack of resources and time (Fenno 1978). There is

still a need to understand customs and practices, and stay true to observations found through the investigation, that can reveal the meaning of and reasons for the outcomes and results found. Conducting interviews and watching websites over and over again would help Putnam (1993). A natural source of information inquiring deeper into the causes of variation in language availability on COMM and DG websites would be politicians and bureaucrats involved in the development and editing of the websites. The goal of interviewing several individuals involved in different COMM and DG websites, representing different language regimes, was to investigate the intentions and philosophies behind different website language regimes, and identify variables connected to specific language regimes. The interviews would thus be the basis of variable selection for the explorative regression analysis, finding variables causing an increase or decrease in language availability. This triangulation or mixed method strategy would increase the possibility to enhance better understanding of the causes of variations in website language regimes. Ten respondents from different COMMs and DGs were interviewed, and two others were e-mailed. These interviews were first of all sources of information to better understand the choices behind each COMM and DG website language regime (Peabody, Hammond, Torcom, Brown and Thomson 1990; Glaser 1996).

Although I tried to include units with some variation on both the dependent and the independent variable, I was not able to completely control the process turning respondents into interviews during my stay in Brussels. With only twelve respondents out of 27 COMMs and 41 DGs opens up for potential problems of selection bias. Reasons for refusals from different potential respondents within the sampling framework can be many (Rivera et al. 2002: 684; Zuckerman 1972: 161): In this case no particular reasons other than too much work, too busy schedule or out of town was given. I therefore do not know from my data whether nonrespondents form a specific type of interviewees that can lead to measurement errors.

However, I was not allowed to interview any of the COMM Cabinets mentioned by other respondents in their interviews to have political impact on EU multilingual policy. Commissioners related to the *Cultural dimension* seemed quite careful dealing with the matter, compared to DGs and several other COMMs not related to culture, and I was usually directed to other units lower down in the system. This might have been a random error and not a systematic one. The influence of nonrespondents on the end result might differ depending on the goal of the project, and the specific purpose for using interviews to attain

this goal (Goldstein 2002: 669). If the purpose had been structured comparisons or generalizations by using sample data, nonrespondents might have been very crucial to measurement errors. The number of nonrespondents and how much this group differs from the respondents able to be interviewed will be quite important. In this analysis, however, the goal is to find complementary information to the statistical data extracted, and investigate intentions and causes for language regime formation among actors related to language regime formation. Since the interviews were more open-ended questions, and the goal was not structured comparisons, time was not used to investigate nonrespondents. The number of refusals is as high as 50%, but several of the “refusers” directed me to other potential respondents decreasing the problem to some extent, although my initial question was related to their own website, and not any of the other COMMs or DGs.

Interviews were not very structured since the main objective was to find variables and mechanisms causing the variation. Loose or semi-structured interviews do not yield the systematic results as in structured interviews, but they might be very informative and accurate (Rivera et al. 2002; Aberbach and Rockman 2002). By asking these respondents open ended and semi-structured questions of more qualitative character it was easier to better understand their choices of and restrictions on language regime formation. The focus was first of all to understand each unit as a complete case. However, a certain degree of structured comparison was needed to limit selection bias in the process of finding variables, and guard for systematic measurement errors (Goldstein 2002; Berry 2002).

Transcriptions were made during interviews, and edited and analyzed the same day. Most transcripts were sent to each respondent while in Brussels, including some specific follow-up questions on missing information not found in the interview. They were also asked to make corrections or add information to make the interview and information as correct and accurate as possible. Several track-changes were made in most interviews, both of new information supplementing the interviews, and information found inaccurate in the interview. These track changes made information more accurate in many instances, minimizing the gap between transcripts and respondents’ answers, since no tape recorder was used. However, certain valuable information was lost due to changes and corrections respondents made in the process. When respondents were given a second opinion on information from the interview, there was a more formal and official approach than the spontaneous responses made during interviews. This made official procedures, organisation and ideology more accurate, and

unofficial customs and practices were sometimes left out in track changes. To compensate for these challenges, the same information had to be found elsewhere, through other respondents, other literature or extracted and processed data.

5.4. From dimensions to variables: regression model variables operationalized

The regression model consists of all COMM and DG websites. The seven dimensions described in the theoretic framework are the basis for the regression model: *Political-Bureaucratic*, *Culture*, *Generality*, *Economy*, *Externality*, *World Language* and finally *Dynamic-Static*. These dimensions are assumed to trigger efficiency and commitment in different ways. To be able to measure the impact of each dimension each of them has to be operationalized, reflecting the characteristic of each dimension. The independent variables are then characteristics found or not in each unit website. All independent variables are therefore dummy variables coded whether a unit disposes a specific unit characteristic or not.

5.4.1. Coding of independent variables

Deciding how to code each unit on a specific variable is not only based on the activities characterized by the unit, but is rather a result of scrutinizing the content of the relevant web pages, investigating the characteristics reflecting each unit website. Hence, the classifications do not seek to reflect what they necessarily do, but the image they reflect on their activities on their web pages, which is the basis of my classification. I.e. it is well known that the agencies dealing with fisheries are concerned about external relations, nevertheless not reflected on their home pages as their main concern. Coding of units is therefore not primarily based on what they do, but their impression visible on their website. The general guidelines prior to the coding of each variable will here be presented, while appendix A-J give more detailed descriptions of the coding of each unit.

Political-Bureaucratic dimension is linked to differences between elected politicians and selected administrators. In the Commission there is one natural division of the two, first, Commissioners (COMMs) from each member state, appointed by the President in cooperation with member states, and acclaimed by the Parliament, second, selected administrators of the Directorates General (DGs). The independent variable *COMM-DG* will therefore represent the *Political-Bureaucratic* dimension. All COMMs are seen in appendix 1-5 with coding of each of the other independent variables, and all DGs are found in appendix F-J with coding to the same independent variables.

Culture is associated with cultural, linguistic and symbolic diversity rooted in territorial/regional differences. The main criteria for being a unit directed at culture, is a visible characteristic, usually seen in the unit website vision or mission statement, relating the unit to culture, education, language or other symbolic activity. This is made in contrast to units involved in economy, law, administration, external relations or technology (Appendix A and E).

Generality is about general messages to all people. Units promoting a general message to all people are distinguished from units communicating more specific and technical information, also closer related to administration. Some units are advertising and promoting the added value or benefits of a specific and important message or topic included in their portfolio to the whole population. The same mechanism is used when some units communicate their accountability and transparency to legitimize their work of the unit to the whole population. The variable *General Message* is operationalized as COMM and DG websites promoting and advertizing a general message to all people, contrary to specialized messages to target groups. The two criteria for having such a general message to the people are: First an explicit statement in a unit's vision or mission statement promoting a general message the unit wants to sell to the whole population. Second a visible project/campaign or idea on their websites indicating a practical outcome of this general message in their vision or mission statement. Several units were hard to classify, however, appendix B and F give a more thorough evaluation of how each unit is coded.

Economy is related to economic activity and exchange of goods and services. The criteria is therefore a visible outcome connecting the unit to economic activity and exchange of goods and services, more practically defined as finance, industry, trade or economic audit. Several problems arose when coding units related to economy: Agriculture and Rural Development, Maritime Affairs and Fisheries, Energy, Transport are all coded economy. Appendix C and G give more detailed descriptions of coding and considerations.

Externality is associated with external communication, and the main criterion is a visible characteristic of external communication outside EU territory, usually seen in the unit website vision or mission statement, connecting the unit to *External Relations* with other states outside the European Union (Appendix D and H).

World Language is linked to central languages in the institution. There are expectations that World Language will have the same role as the central languages in Western European nation state building, and therefore are different than other less central languages in the Union. The Union provides several candidate languages that could fit the description World Language. English, French and German, are all obviously potential candidates. However, there are also other major languages in the union that might be placed in the same category, especially Spanish and Portuguese, and may be Italian. Two criteria are therefore made to specify the World Language characteristic: First, the language has to be an official language in more than one member state, and the language must be used as a major foreign language in the educational system in other member states in the Union. Only three languages fit the description being defined as World Language: English, French and German (Appendix E and J). This variable is one of the easiest to code, although several member states have more than one official language. All units with English, French or German as an official language in their member state have been coded World Language based on the position of the World Language in the respective member state.

The last dimension, *Dynamic-Static*, is operationalized based on COMM and DG subgroups created at level C2-C3. Subgroups related to CV, Portfolio, Focus and Key documents are defined as static, while News, Speeches and Press releases are coded dynamic. Since it is impossible to distinguish between dynamic and static pages at C1, the *Dynamic-Static* dimension is only able to be measured at C2-C3. A more precise table for coding of each variable is seen in table 1:

Table 1: Coding of independent variables

Independent variable	Coded 1	Coded 0
COMM-DG	Commissioner (COMM)	Directorate General (DG)
General Message	General message to all seen on the website	Specific message to target groups seen on the website
Culture	Related to culture, language, communication and symbolic activity	Not related to culture, language, communication and symbolic activity
Economy	Related to economic activity and exchange of goods and services	Not related to economic activity and exchange of goods and services
External Relations	Related to external communication with outside states	Not related to external communication with outside states
World Language	Being a world language, thus defined as one of the three World Languages: English French and German	Not being one of the three World Languages: English, French and German
Dynamic-Static	Subgroups related to CV, Portfolio, Focus and key documents	Subgroups related to News, Speeches, Press releases

5.5. Regression models

To be able to estimate the effects of the seven variables on language regime formation, three regression models for all COMM and DG websites (COMM-DG) were developed, one for each level C1-C3. Since the dependent variable is standardization and diversification ranging from 1 to 23 languages, the B coefficients will be a direct expression of the average increase or decrease in number of languages caused by a change in the independent variable.

Furthermore, all independent variables are dummy variables, displaying characteristics or qualities found or not in each unit. The coefficient of each variable in the regression is therefore measuring the average increase or decrease in number of languages depending on whether a particular unit characteristic or quality is present or not. In statistical terms the B coefficient is an expression of the difference between the group mean of a unit characteristic present (coded 1) and group mean (coded 0) when it is absent (Field 2009: 259-260). By doing so, the challenge of measurement problems is overcome (King 1986), since all independent variables are measured in the same way, the absence or presence of a particular unit characteristic or quality.

In the former COMM-DG models for C1-C3, all COMM and DG websites are used as observation units. Measuring the dependent variable language regime, this first approach relies quite heavily on the mean of all subgroups at C2-C3, since each website language regime is made from the mean of sum total of all subgroups. A second approach is therefore used to examine the impact of the same variables at levels C2-C3 less affected by the mean. The latter models (COMM-DG subgroups) contain all subgroups as observation units, increasing number of observation units drastically. Instead of using the sum total mean of all subgroups for each website, the models use the mean of each subgroup directly. The analysis will compare the two approaches and assess whether different approaches with the same models give same significant results in direction and magnitude of B coefficients. Two last models are made comparing C1 at two different times (T1 and T2).

5.5.1. Estimating model fit and results when sample equals the population

Each model includes R^2 and SEE for model estimations. The major tool estimating the triggering effect of each variable is the regression coefficient (B), and the Std. Error will be used together with the significance level to test whether size and direction of coefficients are more than a random effect. Tolerance and VIF statistics are also presented to estimate collinearity for each variable.

The R^2 is used to estimate model-fit for each model. R^2 shows the proportion of the variance of the dependent variable around its mean explained by the independent variables. High values of R^2 indicate the capability of the model to make correct predictions close to the regression line (Hair, Black, Babin, Anderson and Ronald L. Tatham 2006: 170; Pennings, Keman and Kleinnijenhuis 2006). However, models with lower R^2 can still be used to indicate tendencies by estimating size and direction of B coefficients, although the predictive power will be low (Pennings et al. 2006: 108). To be able to compare models, Standard Errors of the Estimate (SEE) measures the variation in predicted values usually used to estimate confidence intervals (Hair et al. 2006: 175). In this case when sample equals the population, the reason for using SEE is to compare errors between models indicating best fit, together with R^2 .

The B coefficient is the basic instrument measuring the strength and direction of the relationship between dependent and independent variables. The B value will be used to indicate tendencies visible among variables in each model (Pennings et al 2006: 108). Std.

Errors, the standard deviation of sample means, is reported to compare variables and give estimates of the possibility of Type I error (Field 2009: 40-43; Hair et al. 2006; Pennings 2006:123-24). Insignificant coefficients with Std. Errors substantially smaller than B coefficients, can still give important information of size and direction of coefficients when the sample equals the population. Results might not give general conclusions but specific tendencies seen in the sample (in this case the population of all COMM and DGs).

An important estimate is whether a result can be caused by random or not, whether the change in the dependent variable is likely to be systematic or if it could be a result of a random coincidence. Significance testing makes estimations of the probability of expecting the coefficient to be different from zero when it is not (Type I error). In the case of dummy variables the estimation is the probability of expecting the two groups (whether a unit characteristic is present or absent) to be different when they are not (Hair et al. 2006: 175; Midtbø 2007; Pennings 2006: 123-24).

Both Tolerance and VIF gives estimations of collinearity and multicollinearity among variables in the equation (Hair et al. 2006: 176). Low tolerance values indicate that an independent variable is highly predicted by other independent variables in the equation. VIF is the inverse of the Tolerance value also measuring collinearity. High VIF values indicate high degree of collinearity. VIF is also related to Std. Errors, since high VIF values will give increased Std. Errors due to multicollinearity. Std. Errors again gives larger confidence intervals thus increasing the difficulty of estimating whether the coefficient is different from zero (Type I error).

The danger of selection bias does not seem to be very prominent in the regression analysis (King et al 1994), since the sample equals the whole population of all COMMs and DGs, limiting the question of further expectations of generalizations of EU COMMs or DGs in other parts of the world close to zero.

6. Empirical analysis: when theory meets evidence

So far most explanations are based on ideal theoretical considerations and simplified models. However, will evidence confirm theory? Several regression models have been made to identify variables and their effects on the formation of website regimes. The variables are expected to trigger the efficiency and commitment mechanisms, and thus lead to specific changes in language regime formation linked to models addressed. The next chapter will first describe results found in regression analysis by the use of B coefficients, before testing hypotheses. Interviews and close descriptions of website language regimes are used to explain and give deeper insight to regression results, and give support for other results not found in regression analysis.

6.1. Testing results: Variables triggering efficiency and commitment

If the regression results were based on a random sample drawn from a larger population, B coefficients with large Standard Errors failing to satisfy the significance level would have been rejected from the beginning. This would be so since it would be unlikely that the sample would equal the population and thus impossible to say anything about the population in general. However, this analysis contains all 27 COMM and 41 DG websites, and the empirical findings will therefore give a description of all language regimes found on COMM and DG websites. All B coefficients will thus be treated as empirical findings in the sections to come, and later confronted with the question whether effects are likely to be random or not. First the empirical findings will be described by comparing B coefficients in the different models, before assessing whether these causal effects are substantial and significant enough to be more than random effects (different from zero, or Type I Error). This is done by testing the hypotheses on the empirical findings using the B coefficients, significance testing/ t-test and Standard Errors, making estimates of the size of B values compared to Standard Errors (Field 2009: 204-05). Interviews and other data will be used as evidence confronting or understating results found.

What can be read from unstandardized regression coefficients (B) when R^2 is low and the coefficient has moderate or substantial Standard Errors in a population equal the sample? The predictive power of a model with low explained variance tends to be ambiguous. A low or close to zero R^2 is a poor model to predict a value for a specific case on the dependent variable. The same low R^2 , however, might be a good indicator of an average trend or tendency by using the regression coefficients (Pennings, Keman and Kleinnijenhuis 2006:

108). Thus the specific task of the regression models presented is to indicate and examine trends or tendencies of how each variable will affect number of languages on the dependent variable, not to depict the exact value of each case. Nevertheless, highly significant variables with low Standard Errors in a model with high R² is of course preferable.

Table 2: COMM-DG website regression models C1-C3

Level	C1		C2		C3		Collinearity stat.	
	B	Std. Error	B	Std. Error	B	Std. Error	Tolerance	VIF
Constant	8.984	2.437	6.001	1.419	4.110	0.911		
COMM-DG	1.045	2.417	-1.912	1.407	-3.435*	0.903	0.812	1.232
Culture	-1.586	3.622	1.125	2.108	3.392***	1.354	0.685/	1.461
General Message	6.785 *	2.496	3.167***	1.453	1.477	0.933	0.740	1.351
Economy	1.717	2.467	1.616	1.436	2.855**	0.922	0.779	1.283
External Relations	-0.351	3.170	-1.132	1.845	-1.192	1.185	0.894	1.119
World Language	-0.997	2.301	-1.099	1.340	-0.081	0.860	0.863	1.159
R²	0.169	-	0.152	-	0.354	-	-	-
SEE	8.741	-	5.088	-	3.267	-	-	-

*Sig. level 0.001. **Sig. level 0.01. ***Sig. level 0.05. N = 67 in all models.²⁴

Compared to the myriads of incidents and factors that create pressure on language regime formation, expectations of the fit around the regression line were moderate. An R² of approximately 0.15 in both model C1 and C2 is therefore not very surprising, but is more than doubled at C3. The opposite is seen in Standard Error of the Estimate (SEE), experiencing a continuously decrease at both C2 and C3. The lowered SEE deeper into the website structure indicates generally better fit of the model at lower levels. Frequencies for COMM-DG (figure 3) shows that lowered SEE and increased R² might also have another reason. The frequencies show an increased standardization creating more coherent language regimes at lower levels, thus causing less error and less variation to be explained at C2 and C3. In short the models seem to display increased fit at C2-C3.

²⁴ Assumptions in most models are not fully met. Distributions of normality are skewed, and kurtosis is also visible, thus affecting the P-P Plot. C3 indicates heteroscedasticity. Assumptions in multiple regression models contribute to estimation problems estimating the representativeness of the sample. This is less important when the sample equals the population.

The regression analysis for both COMMs and DGs (*COMM-DG*) at C1 shows a constant of approximately 9 languages, thus giving an increase in language availability close to nine languages with all independent variables in the model at zero. As mentioned earlier, the unstandardized B coefficients of each variable will be the increase or decrease in languages caused by the variable. What do the regressions tell us about causes of variation in language availability on the websites? Looking at the unstandardized regression coefficients (B), the *COMM-DG* models give mixed confirmations of the hypotheses developed in the theoretical framework. However, since the sample equals the population, the need of estimating the representativeness of the sample is less precarious.

Both model and theory show the same positive language change for the variables *COMM-DG*, *General Message* and *Economy* at C1, although *General Message* is substantially higher than the other coefficients. *General Message* has the highest B coefficient of approximately 7 languages, more than four times higher than the second highest B, *Economy*, of 1.7 languages. The positive effect of *General Message* was expected, although an increase of more than 7 languages was above expectations. Contrary, the three variables *Culture*, *External Relations* and *World Language* indicate a moderate negative effect both in direction and in magnitude at C1. *Culture* display the highest negative effect of 1.6 languages, quite close to the one language estimated for *External Relations*. *World Language* gives the smallest B value of all at C1, with a minimal decrease of 0.4 language.

At C2 the constant is 6 languages, indicating a decrease of three languages from C1. *Culture* is the exception and the only variable giving a relative language increase from model C1 to C2. Although *General Message* displays the highest decrease from C1 to C2 of about 3.5 languages, it is still the highest coefficient with 3.2 languages, close to 1.6 languages more than *Economy*. The coefficient of *Economy* stays almost the same as at C1 with 1.6 languages. These are the two variables that keep the highest degree of overall diversification of all levels. With a positive B coefficient of 1.1 language at C2, *Culture* shows an approximate increase relative to other variables of 2.7 languages compared to C1. *Culture* seems to be the most influential variable increasing language availability at levels deeper down, although *Economy* also demonstrate surprisingly high coefficient at C2.

A further analysis of B coefficients at C2 shows that Both *World Language* and *External Relations* have B coefficient close to – 1.1 language, a decrease from C1, although marginal

for both. The variables External Relations, World language and Culture had all negative B coefficients at C1. However, the three variables seem to exhibit very different characteristics at the two levels C1 and C2. Both *External Relations* and *World Language* show moderate standardization at both levels, also continued at C3, while *Culture* demonstrates a clear change towards moderate to strong diversification, a trend also seen at C3 discussed later. To sum up, all variables least multilingual at C1, *Culture*, *External Relations* and *World Language*, show different characteristics at C2-C3: *Culture* moves towards moderate to strong multilingualism, while *World Language* displays further standardization. *COMM-DG* seems to mirror the same process seen in *Culture*, only in the opposite direction. With a positive coefficient of approximately one language at C1, changing to -1.9 at C2, this is the opposite trend seen for *Culture*. Both trends are substantial and striking and will need a further investigation later.

The constant at C3 is 4.1 languages, a decrease of approximately two languages from C2 indicating a further standardization from C2-C3, or it demonstrates a better model. At C3 three variables seem to have a strong impact on the model, but in different directions. Two variables, *Culture* and *Economy*, display substantial coefficients, the former close to 3.4 and the latter approximately 2.9 languages respectively. Again it is surprising that *Economy* display such a substantial coefficient at C3. Also *General Message* shows a moderate positive B value close to 1.5 languages at C3, the third largest B coefficient at this level. Contrary, the *COMM-DG* coefficient displays a further decrease of about -3.4 languages, thus the opposite process seen between levels for the variable *Culture*, both in strength and direction. The two last variables are both negative at all levels, although the effects are minimal or close to nonexistent. *External Relations* shows a negative but minimal B coefficient of -1.3, while the effect of *World Language* can be described as nonexistent with a coefficient of -0.08. *External Relations* shows therefore a negative effect of approximately one language at all levels, while *World Language* gives less than a half language decrease in coefficients at C1 and approximately one language decrease at C2, and no effect at C3.

6.2. COMM and DG subgroups at C2-C3 adding a *Dynamic-Static* dimension

The observation units included so far are all COMM and DG websites, and the dependent variables at C2 and C3 comprise of the mean of all subgroups in each COMM and DG. Thus the dependent variables rely heavily on the mean of all subgroups within each unit (COMM or DG). Another approach or method operationalizing the dependent variable is to include all

subgroups as observation units, and measure the dependent variable based on the language regime of each subgroup directly. Language availability of each subgroup will thus be the dependent variable instead of the mean of all subgroups in each unit. The approach will not rely on the mean of all subgroups, and it will increase number of observation units. To inform the analysis even more it is possible to expand the theory by focusing on the relationship between static and dynamic information structured at different website levels. Together with the variables already presented, the next regression models for levels C2 and C3 are able to introduce a new variable, *Dynamic-static*, presented in the theoretical framework.

Table 3: COMM-DG regression models with all subgroups C2-C3

	C2		Collinearity stat.		C3		Collinearity stat.	
	B	Std.Error	Tolerance	VIF	B	Std.Error	Tolerance	VIF
Constant	6.706*	0.964	-	-	5.621*	0.788	-	-
COMM-DG	-0.797	0.944	0.766	1.306	-1.456****	0.761	0.745	1.342
Culture	0.958	1.389	0.669	1.494	2.470***	1.110	0.676	1.480
General Message	3.886*	0.971	0.727	1.376	1.165	0.772	0.726	1.378
Dynamic-static	-6.136*	0.926	0.906	1.104	-2.639*	0.722	0.885	1.130
Economy	2.313***	0.973	0.753	1.328	1.900***	0.777	0.749	1.335
World Language	-0.820	0.904	0.850	1.176	-0.653	0.713	0.858	1.165
External Relations	-1.397	1.227	0.874	1.144	-1.837****	0.966	0.855	1.170
R²	0.205	-	-	-	0.153	-	-	-
SEE	7.147	-	-	-	5.105	-	-	-

*Sig. level 0.001. **Sig. level 0.01. ***Sig. level 0.05. ****Sig. level 0.10.

N = 300 for C2 and N =242 for C3²⁵.

Several variables in the new COMM-DG subgroup models show similar patterns between levels seen in the earlier/former COMM-DG models²⁶, although the coefficients for two variables are lower in the COMM-DG subgroup model. The negative coefficient of variable *COMM-DG* at C2 (-0.8) is approximately half the size seen in the former COMM-DG model,

²⁵ Assumptions in the models are not fully met in either C2 or C3. Distributions of normality are skewed, and kurtosis is also visible, thus affecting the P-P Plot. C2 falls into vaguely systematic layers, and C3 indicates heteroscedasticity. Estimation problems due to broken assumptions are less precarious when the sample equals the population.

a tendency also visible at C3 (-1.5), while both *Culture* (1.0) and *General Message* (3.9) display almost the same results in the different COMM-DG models at C2 and at C3. Contrary, the three next variables do not show the same patterns found in the former COMM-DG models, either in direction or magnitude. At C2 *Economy* (2.3) yields nearly twice as many languages in COMM-DG subgroups as the former model, with a small decrease in both models at C3. The B coefficient for *External Relations* in the COMM-DG model for all subgroups is also negative, although the B values are smaller. The new variable, dynamic-Static is quite striking, with a negative coefficient of more than 6.1 languages at C2 and 2.6 languages at C3 they are both the far lowest B values at both levels. A closer investigation of the Dynamic –Static dimension will follow.

6.3. Testing hypotheses: Results evidenced and explained

The next question is whether empirical findings expressed in unstandardized regression coefficients are large enough to be different from zero, and thus not only display random effects. Standard Errors and significance levels will help examining size and significance of coefficients, testing whether hypotheses are likely to be true. Comparing results in different models displays four variables that seem quite consistent with expectations based on B coefficients (*COMM-DG*, *Culture*, *General Message* and *Dynamic-static*). One variable shows moderate Bs following theory in most models (*Economy*), while two variables do not seem to affect the results in a substantial way due to inconsistencies between models and continuously low B values (*External Relations* and *World Language*). However, are B coefficients larger than Standard Errors, and are they large enough to be significant?

6.3.1. COMM-DG

In our hypothesis it is posed that political units will enhance commitment at top level to increase efficiency at levels lower down, thus increasing standardization. Bureaucratic units on the other hand, will have some degree of standardization at top level to be able to enhance commitment at levels lower down, to increase diversification. B coefficients close to zero will indicate no difference between political and bureaucratic units in language regime formation. The B coefficient at C1 in the COMM-DG model shows that being a COMM will increase website language regime with slightly one language compared to being a DG. However, large Standard Error and insignificant coefficient suggests that there is no very clear difference between the two groups. At C2, however, there is a reversed relationship between COMMs and DGs. Units related to COMMs yield a negative B of almost two languages compared to

DGs, indicating a stronger degree of standardization among COMMs than DGs at level C2. The reversed process is even strengthened at C3, indicating a further standardization by COMMs of approximately 3.5 languages. Moving into the website structure something seems to happen to both Standard Error and significance. At C2 the Standard Error decreases and gets slightly smaller than the B value, although it is still not significant, and at C3 Standard Error is quite small and the B is significant at 0.001 level. The same trend is visible in the COMM-DG subgroup model at C2-C3, with the only difference that B coefficients are half the size. The Standard Errors also show a decrease moving deeper into the website structure, and C3 is slightly outside the 0.05 level of significance.

These results cannot confirm all parts of the hypothesis, although B values show the same tendencies as stated in theory. The results show that there is quite a strong uncertainty whether politicians are more multilingual at the top level than DGs, but moving deeper into the website structure Commissioners seem to display quite drastic standardization that is statistically significant. This evidence indicates a tendency stated in the thesis that bureaucratic units show more commitment to multilingualism at lower levels compared to political units. It also supports the claim that political units at levels lower down will increase efficiency, since this information is more specialized to specific target groups²⁷. Furthermore, it is also consistent with the argument that bureaucratic units are more competent and willing to follow regulations, thus being more aware of having an overall high multilingual language regime. Bruno Fetelian confirms the multilingual character of COMM websites when he states that Commissioners want to be as multilingual as possible, and argues that COMM websites are more likely to follow the choice of each Commissioner, and therefore can be more diversified in choice of languages. If this is true, it can explain the flexibility of COMM language regimes at different levels. Contrary, he argues that DGs may have fewer languages when they address a more specialized audience. Fetelian also points out that DG websites on the other hand are more specialized, for example the DG Research website which is mostly in English, because English is sufficient to reach their target group²⁸. The results show that this might be true at C1. However, moving into the website structure DGs tend to be more multilingual than Commissioners.

²⁷ See http://europa.eu/abouteuropa/faq/index_en.htm for Union multilingual policy on general and specialized information and levels in website structure.

²⁸ In interview with Bruno Fetelian DG Communication.

6.3.2. Culture

A characteristic feature with units related to *Culture* in nation state language regime development is diversity thus expected to maximize language diversification. *Culture* is therefore assumed to oppose efficiency and unitary central standardization, and thus be very multilingual. Ian Anderson points out that DGs like Culture are targeted at all citizens and therefore use all languages. He also states that DG Interpretation is the multilingual flagship, and obviously will be in all 23 official languages. This choice of high degree of multilingualism is based not only on a practical need, but also of the political need to show that they practice what they preach in the EU institutions²⁹. However, although the first association to units related to *Culture* is high diversification most likely at all levels; the empirical evidence does not support such an argument. Our theory of the logic of efficiency and limited recourses, states that Culture will lead to efficiency at top level being able to increase commitment at levels lower down, thus increasing the overall level of diversification. The B coefficients stated above give mixed support for the thesis at different levels.

Culture respond in the opposite direction between levels compared to *COMM-DG*. While *COMM-DG* moves from a positive B coefficient of one language at C1, continuously decreasing to approximately 1.5 at C2 and 3.4 languages at C3, *Culture* starts out quite low with a negative B of close to 1.5 languages at C1, increasing to 1.4 for C2 and 3.4 at level C3. It is puzzling at first sight that Culture gives an average decrease of one language at C1, since culture in its character is divers, thus associated with territorial diversity and regional cultures, and strength of regional languages. Limited recourses do not allow all units full diversification at all levels. With finite recourses and due to the need of efficiency, highest possible communication output to the lowest cost, most units will on average be more restrictive at C1 to be able to be as multilingual as possible at levels deeper down. Lower diversification relative to other variables at C1 is therefore quite sensible, saving recourses for the production of a consistent increase in language diversification at C2-C3.

However, Standard Error and the significance show the same tendencies seen in *COMM-DG*. At C1 Standard Error is quite big and insignificant thus indicating that far from all units related to Culture trigger efficiency at top level, and the variable is not a very reliable indicator of the effect at C1. Nevertheless, moving to C1 and C2 there is a marked decrease in

²⁹ Interview with Ian Anderson DG Interpretation.

Standard Errors. Thus at C3 the Standard Error is substantially smaller than the B coefficient, and significant at 0.05 level, exactly as seen in COMM-DG. Although the B coefficients are somewhat lower, the same trend of increased B values moving to C2 and C3 is seen in COMM-DG subgroups model. Also here the Standard Error decreases moving to C3, with smaller Standard Errors also at C2. Similar to COMM-DG, only C3 is significant at 0.05 level.

DG Translation and DG Interpretation illustrate the different strategies of efficiency and commitment by different units related to Culture depicted by large Standard Errors especially at C1. DG Translation seems to face paradox seen in theory very clearly, that Culture tends to Commitment, but need efficiency to establish a best possible overall language regime keeping the commitment of multilingualism. DG Translation displays a consistent language regime of three languages throughout all levels C1-C3. By choosing efficiency above commitment on its own website, the DG allocates more resources, thus increasing their translation capacity for all other units, making the overall language regime more multilingual. Hence, by being less multilingual on their own website, they are able to increase the multilingual character of the overall language regime of both COMM and DG websites, giving evidence for the same logic. The same consistent overall language regime is seen on the website of Commissioner Wallström³⁰ responsible for Communication.

**Table 4: COMM Language regime C2
Communication and Institutional Relations**

Wallsröm (SV)	Sum	Mean	Median
CV	4		
Portfolio	4		
Focus	4		
Press releases	4		
News	4		
Speeches	4		
Key documents	4		
Blog	1		
Sum	29	3,63	4

COMM website for Communication and Institutional Relations display a website language regime of four languages both at C1 and C2, also used by the President. This website regime

³⁰ Number of languages on website of Commissioner for Institutional Relations and Communication Strategy C1= 4, C2=3.63 and C3=6.05.

has received increased acceptance and popularity, and several other COMM websites have opted for this language regime the last months. With an overall language regime ranging from four languages at C1 increasing to approximately six languages at C3, the need of efficiency at C1 is visible, enabling the website to be more multilingual at C3, keeping the commitment of multilingualism. Several units seems therefore to have chosen a language regime of the three more or less official working languages (English, French and German) plus their official member state language balancing efficiency and commitment.

As Standard Errors display, not all units related to culture use the same strategy at C1. The number of languages in each website is based much on individual preferences, depending on which logic you give yourself to: The pressure of cost, efficiency and flexibility versus transparency³¹, triggering either efficiency or commitment. One interviewee in DG Interpretation³² described DGI as “the flagship” of multilingualism, and stated that the DG would not likely choose efficiency above commitment, since it would undermine the specific character of DG Interpretation. DG Interpretation is therefore one of very few keeping a highly multilingual overall language regime at all levels, ranging from 23 languages at C1 to 18 languages at C3. However, both Commissioner Figel³³ responsible for Education and Culture, and DG Education and Culture³⁴ seem to face the same challenge of finite resources. By using their resources on a commitment to multilingualism on a full multilingual top layer, they have to make priorities at lower levels, and therefore be less multilingual at lower levels compared to most of the other websites related to culture. Thus commitment at top level gives efficiency at lower levels due to scarce resources. Substantial Standard Error and the examples above show that not all units related to Culture are triggered by the efficiency mechanism at C1 as expected in theory, although the average is a small decrease of one language at C1.

Regression coefficients indicates a consistent increase in B values from C1-C3 ranging from minus one language at C1, to slightly above one language at C2, and a positive B of 3.4 languages at C3, The tendency follows theory to a large degree expecting a continuous

³¹ Linda Jones DG Information Society emphasized in her interview how much individual preferences are part of website language formation, and the possibility for each unit to choose between cost, efficiency and flexibility versus transparency.

³² In interview with Anderson DG Interpretation.

³³ Number of languages on website language regimes for Commissioner of Education, Training, Culture and Youth: C1=23, C2=7.6, and C3=4.78.

³⁴ Number of languages on website language regimes for DG Education and Culture: C1=20, C2=12.5, and C3=2.91.

increase deeper into the website structure. This process of increased diversification of approximately two languages both at level C2 and C3 seems to be more reliable than results at C1, since Standard Errors display a decrease at both C2-C3, with a C3 that is significant at 0.05 level. The overall language regime at all levels will thus show higher degree of language diversification compared to most units with high degree of diversification at level C1, and thus fulfil the expectations of high overall commitment to multilingualism for variables related to *Culture*. This again leads to high degree of language diversification at C2-C3.

6.3.3. General Message

General Message is the variable with the strongest and most evident results at C1. The variable gives a striking increase on the top layer of approximately six languages compared to those having more specialized messages. *General Message* follows the path of decreasing B values seen in *COMM-DG*, although the B coefficients for *General Message* are substantially higher, giving 6.8 languages at C1, decreasing to 3.2 at C2 and 1.5 at C3. The B coefficients are considerably larger than Standard Errors in all models. It is also the only variable significant at C1, and one of three variables significant at C2. This is also very consistent with theory arguing that general information to all people increases commitment to multilingualism and causes high degree of diversification in their efforts to inform all people³⁵. Those not having a general message would be more closely related to specialized and technical messages to specific target groups triggering efficiency creating standardization. However, it is not significant at C3, with increased Standard Errors relative to B values deeper down in the web structure. This is the opposite trend of most variables with smaller Standard Errors and more significant Bs deeper down in the website structure. The B values are still quite large even at C3, indicating that generality has a substantial triggering effect on the commitment mechanism thus increasing diversification. Nevertheless, its increase is substantially smaller at level C2 (2.6 languages) and C3 (1.1 language), although all levels show an increase of languages relative to specific and technical messages. This indicates quite a strong commitment to multilingualism at all levels. The significant increase in languages of approximately 6 languages for General Message at C1 is therefore a result very consistent with theory that general messages at top level will be quite multilingual reaching the whole

³⁵ High diversification of general messages is also stated at as one of the main strategies in the EU multilingual policy. See http://europa.eu/abouteuropa/faq/index_en.htm.

population. This is supported by several respondents emphasizing the multilingual character of general messages in the union³⁶.

The degree of diversification at C2-C3 is above expectations. Based on theory on efficiency and the hypothesis on limited-resources, it is expected that the number of languages at lower levels would decrease, enhancing efficiency at lower levels, thus being able to increase diversification at top level. Commitment to high degree of multilingualism at one place in the website structure will lead to increased efficiency and thus standardization in another part of the website structure. *General Message* shows less diversification deeper down in the website structure than at top level, but it still keeps a relatively high diversification. Another factor to this process is mentioned by Fetelian³⁷, emphasizing the relationship between general and specific information and levels in website structure. The Cabinet of Environment contains general information on the first website level, leading to sub sites connected to DG environment. Similarly, general information is highly visible on DG Research first website level. More specific information, however, is placed at third level, connected to FP7, giving highly specialized information on research not worth the cost of translation. General message will therefore for the most part be placed at top layers leaving specific information to specific target groups to lower levels in the website structure.

It might seem like units related to *General Message* keep their general character even at lower levels. The data material collected so far does not give the opportunity to divide between general and specific information at lower levels. The B coefficient for *General Message* only estimates number of languages at different levels for units defined as having a general message at C1. As stated before, Standard Error is larger at C3 relative to the size of the B coefficient, and the B value is quite small, thus indicating a less coherent effect at C3. It is therefore harder to distinguish between the triggering of efficiency and commitment at C3.

6.3.4. Dynamic versus static information

History shows that increased industry and economic activity enhanced the pace of information, thus created the need for one common language between language groups for efficient and fast communication. Such dynamic and flexible information is also visible in the new information society, linking people and events by the use of digital technology. Dynamic

³⁶ In interview with Gangl, Robert DG EcFin,

³⁷ In interview with Bruno Fetelian DG Communication.

information will therefore lead to high degree of efficiency, while static information will enhance commitment to multilingualism and increased diversification.

This is also confirmed by several respondents: Stable information will stay long on the website, and is therefore reckoned to be worth the investment of translating into more languages. The result is a high degree of diversity of languages available on these pages. Fast, dynamic information, on the other hand, changing quickly, and soon is obsolete, would usually be translated into only one or two languages. The language practice can be described as based on pragmatism. Information that is quickly changed and soon obsolete will usually lead to one or two languages (often three though, whenever possible: English, French, German), while stable information over time, aimed at the general public would lead to diversity of languages³⁸.

At C2 and to some extent C3, a substantially number of COMMs and DGs show both high degree of standardization and high degree of diversification within the same unit in different topics like portfolio, CV, news, focus and key documents. Static and general information is placed higher up in the structure, while dynamic information changing quickly often has a “window” on top layer that shows the way to the other dynamic information deeper down in the structure. The most prominent example is the use of the most important news in English only at C1, leading to news archive deeper down in the website structure. Administration Audit and Anti-Fraud clearly exemplifies the difference in language regime between dynamic and static pages.

Table 5: Language regimes for Admin Audit and Anti-Fraud subgroups C2

Siim Kallas (ET)	Sum	Mean	Median
CV (profile)	20		
Portfolio	20		
Focus	20		
Press releases	3		
Speeches	1		
Sum	64	12,8	20

All stable information (CV, portfolio and focus) not changing drastically over time is available in 20 languages. As seen here however, all dynamic information (press releases and speeches) that is soon obsolete and therefore needs up-dates quite regularly is only in one

³⁸ Interview with Bruno Fetelian DG Communication.

language (speeches) and sometimes three languages (press releases) The static pages are substantially more multilingual than the dynamic ones, being quite problematic in an accountability and transparency perspective. Static pages are general policy statements like mission statements, vision and portfolio overviews. However, accountability can only be exercised/ managed/ conducted in a dynamic process of monitoring previous work or actions. Such monitoring can be done through news, press releases and speeches, all dynamic and fluctuating.

It is also a challenge that much static information is final result of what is already accomplished, thus questioning the possibility of a multilingual deliberative democracy in EU communication. All official Treaties, Regulations, procurements and other official documents are available in all languages as final products. Nevertheless, the multilingual deliberative debates and political processes leading up to final treaties are not available in all member languages, thus increasing the information asymmetry. One major challenge mentioned by several interviewees is the complexity, cost and time consuming task of keeping dynamic and lively websites updated in several languages³⁹. Therefore, compelled by efficiency, dynamic information will be less multilingual than static pages. The next tables show the average COMM website language regime of each subgroup for levels C2-C3, stating the elementary difference in language diversification between static and dynamic information⁴⁰.

Table 6: Subgroup language regimes on COMM websites C2

Subgroups	D/S*	Translated pages	Information pages	Languages Pr. page
CV	S	314	27	11.6
Portfolio	S	268	23	11.7
Focus	S	136	16	8.5
Key documents	S	66	10	6.6
News	D	41	23	1.8
Speeches	D	54	26	2.1
Pressreleases	D	44	20	2.2
Sum total/mean		923	145	6.4

*Subgroups divided into dynamic (D) and static (S) information.

Each table is divided into information pages and translated pages. Information pages equal all pages in a one-language regime thus representing all information found on a website

³⁹ Hannah Hindrikus CAB Kallas Admin, Audit and Anti-Fraud; Linda Jones DG Info Society; and Kirkterp COMM Agriculture and Rural Development.

⁴⁰ The empirical findings of dynamic and static pages are focused on COMM-websites, and thus not allow for an examination of DG subgroups in the same manner.

subgroup. Translated pages count all translated information pages in a subgroup also including all information pages. Mean shows languages pr. page. The table also distinguishes between dynamic and static information, depicting differences between dynamic information pages and static ones in number of languages for each subgroup.

The table clearly shows that news, speeches and press releases, all related to activity and flexibility display high degree of standardization, way below the mean of 6.4 languages. All static information subgroups (CV, portfolio, key documents and focus) are above the mean of 6.4 languages. Most static subgroups show quite substantial diversification compared to the dynamic subgroups. However, the static subgroups alone will barely serve as information monitoring policies in each unit (COMM and DG). In the light of the Commission emphasizing the importance of multilingualism, transparency and deliberative democracy (European Commission 2005c) the empirical results is quite striking. People from small or medium sized official language groups without fairly good competence in one of the world languages will at one`s best have unequal access to important static information. However, dynamic information will for the most part be completely inaccessible. This duality between efficiency and democracy is also understood among EU officials. Democracy is determined to translate everything into all official languages, while efficiency, lack of recourses and actual costs make it impossible. Websites are therefore deemed to a trade-off between complete multilingualism and resources, efficiency and expenditure⁴¹. Subgroup language regimes on COMM websites at C3 in table 6 show some changes worth noting.

Table 6: Subgroup language regimes on COMM websites C3

Subgroups	D/S*	Translated pages	Information pages	Languages Pr. page
CV	S	254	53	4.79
Portfolio	S	1415	283	5.00
Focus	S	403	107	3.77
Key documents	S	756	255	2.96
News	D	2019	708	2.85
Speeches	D	2434	1347	1.81
Pressreleases	D	4977	992	5.02
Sum total/mean		12258	3745	3.27

* Subgroups divided into dynamic (D)and static (S) information.

⁴¹ Interview with Bruno Fetelian DG Communication.

As expected at C3 we see that especially speeches, dynamic and complex information show substantial degree of standardization. News is second, right below the mean of approximately three languages. The results at C2-C3 follow the general guideline for Cabinets and DGs and their use of languages. General and stable information leads to diversity of languages, while volatile information, with limited time span, changing quickly usually will be translated into only one or two languages, especially English⁴².

However, there are several results in the C3-analysis that is quite striking. Key documents seem to be a puzzle indicating higher degree of standardization than the mean. It is quite surprising that key documents have less than three languages pr. information page. We would expect high priority to this subgroup increasing access to important information. Some Commissioners and DGs are organized in such a way that the Commissioner is responsible for giving general policies to the people, while the DG regulates and manages the legislative policies including coordination and communication with specific stakeholders and audiences. This organization is not preferred by all. Several websites have low quality mixed language regimes with headlines in most official EU languages, and news in English or one of the other large language groups. This is done to provide dynamic and flexible information as quickly as possible on an up-to-date webpage as multilingual as possible. (Analyze interviews find references to unequal distribution of how much recourses and expenses are used on language translation. Explain the process of budget and translation costs.)

Another challenge to transparency is the process of adding new translated texts as they are finished. English is for the most part always the first text ready to be put on the web, since it usually is the original text. There is however a problem whether to put out texts in all languages at the same time or add new texts language translations are ready. English usually comes out immediately, and the other languages are published as they are produced when possible⁴³. Again it is possible to see the information asymmetry as texts in certain languages will be able to be accessed quickly while others will have to wait until resources allow them to be produced. However, it is emphasized that there is a legal obligation of translating the official journal, calls for tender, regulations and so on into all 23 languages. One way of increasing languages on dynamic information pages like news is by linking the website to

⁴² Interview with Bruno Fotelian DG Communication.

⁴³ In interview with Linda Jones DG Communication and interview with

press releases, since many press releases are translated into several languages⁴⁴. Such a system of borrowing increases language regimes thus enhancing transparency, while cost for each website is unchanged, except for DG Communication providing the press releases.

6.3.5. Economy

Economy is very consistent at each level C1-C3. In the COMM-DG model, the variable reveals a positive coefficient of slightly less than two languages at levels C1-C2, and at C3 the B value is even close to three languages. It is important to note that the Standard Error at C1 is bigger than the coefficient and not significant, thus not a very reliable indicator of the strength of the relationship at top level. However, Standard Errors decrease below the size of the coefficients at levels C2-C3, and the B coefficient is significant at C3. In the COMM-DG subgroups model the coefficients are kept at two languages at both C2 and C3, with low Standard Errors and significant at level 0.05 for both levels. The results give reason to believe that units related to economic activity seem to trigger commitment to multilingualism and high degree of diversification at most levels, although C1 is not very reliable indicator due to larger Standard Errors than coefficients. This is quite a puzzle seen with the eyes of nation state language regime formation. Why will units related to economic activity show a substantial and consistent multilingual regime?

According to Rokkan (Flora et al. 1999) and Wright (2000) economic exchange leads to the need of one standard language cross-cutting territorial ties like language, and lead to less variation within than across units (read: nation states, Wright 2000). Laitin (1997) use weberian rationality to describe the processes of rational and efficient communication in one language in state bureaucracy, regulations and tax collection that eventually will lead to language unification. Economic units are also expected to involve information of technical character, with specific target groups encouraging standardization. Andersen DG Interpretation⁴⁵ confirms this by stating that trade for the most part is in English only since all clients in business speak English and need information immediately. He does not specify at which level this standardization of English is taking place. Gangl⁴⁶ representing DG EcFin states that third layer is for the most part in English only. The reason is first the assumption that more interested users and experts will be fluent in English since English is more or less a

⁴⁴ In interview with Lind Jones DG Communication, and interview with Karel Bartak DG Education and Culture.

⁴⁵ In interview with Ian Anderson DG Interpretation.

⁴⁶ In interview with Robert Gangl DG EcFin.

lingua franca in economy. Another reason is that academic and expert output for the most part is in English. This tendency of increased standardization is visible on COMM website for Trade (table 7). COMM Trade is coded with a language regime of 22 languages at C1, although the multilingual character of the website is quite limited.

Table 8: COMM website language regime C2

Trade Portfolio	C2	Mean	Median
CCV	1		
Focus (presentation to EP)	1		
News (trade press room)	1		
Speeches (and articles)	2		
Sum/mean	5	1,25	1

A thin multilingual layer at the top level is soon exchanged by a standardized regime of close to one language. COMM Trade is also coded External Relation and World Language, all expected to have moderate standardization, thus increasing the need and possibility for efficiency.

However, Gangle also describes another factor stronger than the need for efficiency, creating diversification in DG Ecfin⁴⁷. DG EcFin provides general public material in many languages to communicate the benefits of the euro and of the Economic and Monetary Union (EMU). Multilingualism also aims at multipliers in local institutions communicating the benefits of the euro, EMU and other EU achievements, such as the internal market. One specific example is the publishing on EcFin website in its euro section information on euro coins. This web section is highly multilingual and attracts a high number of visits. This also strengthens the hypothesis stating that advertising the economic advantages of the EMU leads to increased commitment to multilingualism. The argument is that units related to economy feel obliged to promote the internal market and the Euro, hence enhancing economic stability and prosperity. This is best done by a multilingual strategy reaching all people, showing them that their language is worth the investment of their economic message. Still it is unexpected that units related to *Economy* keep such a strong multilingual regime relative to other variables also lower down in the structure. Especially since units related to economy seem to have a very explicit strategy of English only at C3 directed at specific target groups. DG Economy and

⁴⁷ In interview with Robert Gangl, web-coordinator DG EcFin.

Financial Affairs at C2 visualizes the multilingual character of several websites directed at economic activity also at lower levels.

**Table 9: DG Website language regime C2
Economic and Financial Affairs**

Portfolio	C2	Median	C3
International economic issues	22		23
CV	1		2.67
Economic situation	22		19
Analysis of structural reform	5		13.5
Mean/ median	12,5	13,5	14.54

The high degree of diversification at C3 can to some degree be explained by the fact that all official documents and the most politically important documents have to be translated into all official member languages. These documents are stored at Press release or Key documents lower down in the website structure, and might increase diversification at C2 and C3. Another strategy used by many websites related to economy is borrowing from other internal sites thus increasing number of languages in their website language regime.

6.3.6. External Relations

The expectations of the impact of External Relations on language regime formation are somewhat moderate due to the impact of several factors in European state building. The history of enclosed nation states with separate polity structures and educational systems, and unique languages opens up for three options in External Relations. First the need of being accountable to member governments in matters dealing with External Relations, since external matters are shared with member states, then the need of promoting “united in diversity” to the outside world, both triggering commitment. The third option, the need of efficient communication with outside states is expected to trigger efficiency. Thus the net effect is expected to be small.

As expected the B value is quite small. *External Relations* shows a negative B coefficient close to -0.4, although insignificant at C1, leading to a decrease of slightly one language at both C2 and C3. The small to moderate B values in all three models are consistent with theory, and the negative coefficients at all levels tend to support the efficiency option, arguing that there is a small tendency that boundary building will lead to standardization. It is most

efficient to communicate with other member states in fewer languages. Specialized information would require special languages suited for the situation, like the website of the trade area of South-America using Spanish, Portuguese and the other working languages⁴⁸. Nevertheless, small Bs and quite large Standard Errors, especially at C1 and C2, and Standard Error equal to B coefficient only at C3, all of them insignificant at 0.05 level, makes it impossible to prove that the variable trigger either efficiency or commitment. This could conclude the case that the variable does not seem to add explanatory power to the model in this research due to the uncertainty of small Bs and large Standard Errors. The low effect was stated in the theoretical framework based on several options causing both efficiency and commitment.

Although the regression analyses do not support the *External Relation* hypothesis, a closer look at individual language regimes related to *External Relations* might give evidence for the relationship between the variable and triggering of efficiency and commitment. The first impression is that the variation within *External Relations* is quite large. Both language regimes of DG Enlargement and EuropeAid – Co-operation Office are highly multilingual, while DG Humanitarian Aid and DG Development show substantial degree of language standardization in coherent two-language-regimes of English and French. The special characteristic of the diversified language regimes of DG Enlargement and EuropeAid – Co-operation Office at C1, also seen on COMM Enlargement, is the strategy of both standardization and diversification in the same webpage⁴⁹ ..

Each of the diversified websites has for the most part news in English only, with a diversified layout with internal links also highly multilingual. The multilingual links are quite static information thus easy to translate and maintain in a multitude of languages, with few and seldom updates of the information. These preconditions seem to characterize the triggering of commitment, while the dynamic day-to-day communication of policies and political statements show strikingly high degree of standardization, indicating the triggering of efficiency. DG *External Relations* has a coherent four-language-regime at C1, thus specializing language regimes best fit for external communication. The languages included are English, French, Spanish and Portuguese, all considered to be large world languages in

⁴⁸ In interview with Bruno Fetelian, DG Communication.

⁴⁹ This strategy of mixed language regimes create problems of cut points being able to define a webpage diversified or standardized.

different domains. At C2 however most information is only available in English and French, thus stating the triggering of efficiency in *External Relations*.

6.3.7. World Language and member state influence

Also *World Language* gives moderate expectations due to diverging effects thus triggering both efficiency and commitment. European nation state language formation has been associated with standardization of the central language of the elite. Similarly, leaders of each COMM and DG with an official language defined as central language are expected to standardize their language more than leaders with smaller official languages. Members from small official languages might also standardize because they understand that their language has lost the battle of being a working language, thus maximize standardization. In the COMM-DG model, *World Language* shows a negative B value of approximately one language at both C1 and C2, although, the effect at C3 is very minimal, hence not adding more explanatory power to the equation. Both low Standard Errors and insignificant B values demonstrate the lack of explanatory power of the variable. However, all coefficients are negative as stated by theory, although they are not substantial enough to be significantly different from zero. The results are not able to support theory that central language of the elites will increase standardization, to enhance optimal communication to the lowest cost, since Standard Errors are quite big and insignificant in all models. Although this study cannot give reliable proof that central languages trigger efficiency or commitment, a deeper investigation of the impact of official member languages on language regime formation shows that the question of member state language is visible in language regime formation. This is proven by estimating the average use of official language on each website.

6.3.8. The impact of official member languages on language regime formation

More than 90 percent of COMM websites include the official member language of the Commissioner on their website language regime at first website level. Even among DGs the prominent position of the official language of the Director General is very clear.

“Although I come from Slovenia and was nominated to this post by the Slovenian Government, in my job as Commissioner I am completely independent from any national government and look at the interests of the Union as a whole”

(Commissioner Janez Potočnik⁵⁰)

⁵⁰ http://ec.europa.eu/commission_barroso/potocnik/profile/role_en.htm

The above statement is found on the Commissioner of Science and Research website defining the role of the Commissioner. All Commissioners must pledge the allegiance to the Commission declaring independence of every government or state or institution, and renounce the opportunity to be influenced by any such institution. At the same time the above website is only available in English and Slovenian, not very neutral or independent, thus determining who have access to information on the website. Such a language policy may represent both lack of neutrality and independence related to nation state interests. Several website language regimes seem to be steered by pragmatism and multiple needs including national interests⁵¹.

The availability of the official language of each COMM or DG on their own website is surprisingly high for both COMM and DG websites. This is stated in table 7 estimating the mean or average representation of the official language of the leader on his or her website at level C1-C3. The mean is found by dividing number of websites including the official language of the leader by total number of websites, yielding a maximum of one. It is also quite striking that this tendency is kept high also at C2 and to some extent at C3.

Table 10: The availability of COMMs` and DGs` official language on each website

	COMM websites	DG websites
	Mean	Mean
C1	0.96	0.73
C2	0.66	0.75
C3	0.29	0.60

Table 7 shows the average use of the official language of the Commissioner on COMM websites. The mean at C1 is 0.96 languages, and decreases to 0.66 languages at C2, and further down to 0.29 languages at C3, still a remarkable amount compared to the (lack of) significance played by several of the languages in the statistical material collected. This deliberate use of Commissioner`s official language must be viewed as an act of national identity and identification, also increasing transparency for citizens feeling most competent in

⁵¹ In an interview Bruno Fetelian DG Communication states the necessity of pragmatism in language regime formation, and the challenge of finding language regimes maximizing several goals.

national languages. As Ms. Hanna Hinrikus⁵² outlined in her interview, the only direct link between each member state and the Commission is their Commissioner.

“... the Estonian language symbolizes nationality and identity, and is a small way of representing the Estonian identity in the Commission. The commissioner cannot represent their country, because the Commission is first of all representing the whole of EU. The face of EU for Estonians is still the Commissioner of Estonia. “

(My transcription of the interview)

The Commissioners seem to feel responsible to some extent to their own country, by giving the population of their member states access to information in their own language on the websites. This is also confirmed by Bruno Fetelian, stating that the official language of the Commissioner or Director General is very often available on their website. He also argues that people are most interested in the information related to the Commissioner of their own language and member states⁵³. Another argument in the Corridors of the Commission is the philosophy of communicating in as many languages as accessible, thereby also the languages of the unit leaders. In this perspective, using the leader`s language will be viewed as utilizing recourses available and not favouring nation state interests. There is a thin line between the two perspectives of nation state interests and utilization of recourses not easy to define at all times, and sometimes the one seem to disguise the other. Finally, Commissioners from different member states seem to maximize efficiency and still maintain identity by translating headlines and layout in all or several languages, although the factual information is only available in very few languages. The overall language regime of the factual information is thus quite standardized, while headlines and layout are multilingual. In this way efficiency and commitment interact.

At DG level the situation is only slightly different. At C1 the availability of the official language of the GD responsible by using the mean is 0.73 languages, at C2 the mean language is 0.75 languages and down to 0.60 languages at C3. These statistics show that DG`s official language adds approximately 0.75 languages to the website structure both on C1 and C2, and still as much as 0.60 languages at level C3. These high and stable numbers on the availability of DG`s official language on their website, even compared to COMMs, need an explanation.

⁵² Ms. Hanna Henrikus is the personal assistant to Vice President Kallas from Estonia, responsible for Administration, Audit and Fraud.

⁵³ In interview with Bruno Fetelian DG Communication.

There are several evident reasons for the surprisingly high amount of leaders' official language on DG websites. The first reason is a higher degree of multilingualism found on DG websites C2-C3 compared to Commissioners, and by having more languages on level C2-C3, the statistical chance of the DG's language to be among the ones used increases. The second reason is that far more DGs come from the big language families, and therefore the statistics linking unit leader and the languages used increases without necessarily being built on nation state intentions. For example would it be impossible for a UK representative not using English on her website, and of course strategically unwise. She would have to communicate with the language of her target audience, and English is most widely used. There might seem however to be a link between selection criteria for offices and language status. Why are there three DGs from Ireland, a relatively small country compared to one DG from Greece, and only one DG from all of Eastern Europe? Many reasons might be found, but still a person's language repertoire gives him or her special opportunities found valuable in selection for offices. This dynamic might reproduce language structures visible on unit websites.

The six variables seem to trigger efficiency and commitment in different ways. COMMs related to general policy statements to all citizens give moderate increased diversification and thus commitment to multilingualism at C1, while Culture gives a negative impact on regression coefficients on the same level. However, at the two next levels the direction is reversed,

6.4. Change in language regime C1 from time T1 to T2: the two models compared

The last examination will include a comparison of COMM-DG regression models at the beginning of data collection and at the end of the Barroso period⁵⁴, There are several reasons for comparing models over time. First, it is possible to confirm the consistency of variables over time and thus expand the generality of a variable, or it is possible to measure change over time. Some respondents⁵⁵ indicate a process towards more multilingualism on COMM and DG websites, and states that explicit efforts are made to make the websites more multilingual for the future. An analysis at two different periods in time (C1-T1 and C1-T2) might be able to measure changes that have occurred between the two data collections T1 and T2. The dependent variable is still official languages ranging from 1 to 23 languages. This

⁵⁴ Data collection T1= December 2008 and data collection T2 = January 2010.

⁵⁵ Interview with Karel Bartak DG Education and Culture.
E-mail Christina Mac COMM Multilingualism.

analysis will look for both consistency and change (table 7). Are language regimes consistent over time or do they change, and if they change, what are the reasons for these changes?

Table 7: COMM-DG website regression models level C1 at T1 and T2

Level	C1 at T1		Collinearity stat		C2 at T2		Collinearity stat	
	B	Std.Error	Tolerance	VIF	B	Std.Error	Tolerance	VIF
Constant	8.984	2.437	-		8.735	2.708	-	-
COMM-DG	1.045	2.417	0.812	1.232	-2.349	2.671	0.822	1.217
Culture	-1.586	3.622	0.685	1.461	-1.755	3.949	0.707	1.415
General Message	6.785 *	2.496	0.740	1.351	3.530	2.729	0.764	1.309
Economy	1.717	2.467	0.779/	1.283	2.981	2.770	0.773	1.293
External Relations	-0.997	3.170	0.894	1.119	-0.169	3.511	0.894	1.119
World Language	-0.351	2.301	0.863	1.159	-0.057	2.586	0.850	1.176
R²	0.169	-	-		0.056	-	-	-
SEE	8.741	-	-		9.564	-	-	-

*Significance level 0, 005⁵⁶.

T1= First data collection December 2008

T2= Second data collection January 2010

First, none of the variables in model C1 at T2 (C1-T2) are significant, and there is a decrease in the already low R² from T1 to T2, thus a very loose clustering around the regression line. All variables but *General Message* have high Standard Errors compared to B coefficients, also indicating low reliability. In model C1 at T1 (C1-T1) *General Message* is the only significant variable (0, 005 level). Since all COMMs and DGs are included, and the primary focus is not to establish generalisations but a closer examination of COMM and DG websites, the level of significance is not of primary importance. However, the directions on the unstandardized B coefficients are quite unchanged in the two models, although the magnitude of each variable varies.

Only *General Message* is significant at C1-T1, and none of the variables at C1-T2 are significant. However, some of the coefficients are worth noting. Both *General Message* and *Economy* display the same positive coefficients as at T1, and *Culture* and *World Language* have both the same negative coefficients seen at both time periods. Nevertheless, one change is substantial and puzzling. The B coefficient of variable *COMM-DG* has changed from

⁵⁶ Since assumptions related to C1-T1 is mentioned earlier, only a short description for C1-T2 is given here. There is substantial violation of both normality and PP-Plot, and residuals in the scatter plot shows two vague layers not especially skewed. The regression model is therefore not very reliable stating generalizations, and can only be used as empirical findings in the sample of COMM and DG websites indicating possible tendencies.

approximately one at C1-T1 to – 2.3 at C1-T2, a negative change of approximately 3.6 languages. Large Standard Errors indicate quite large uncertainty about the result, but is there other data that can confirm the radical standardisation that seems to take place among COMMs at C1, and the moderate diversification among several DGs.

The inevitable reality of already high translation costs, increased pressure on DG Translation, and the cumbersome and complex translation procedures mentioned by several interviewees⁵⁷ have made some Commissioners change their language regime in the dusk of the first Barroso Commission⁵⁸. These changes were done during 2009 and beginning of 2010, after my final website analysis. Evidently there are two forces in language communication on the website working in opposite directions: the two efficiency and commitment mechanisms that lead to either standardization or diversification. What is then determining the actual outcome of each language regime on their websites? Several political units seem to have changed language strategy, thus providing a political consensus of change in language regimes. Bureaucratic units on the other hand, seem to feel more obliged to follow bureaucratic rules and regulations, and are thus more reluctant to standardization. Several units even show substantial increase in diversification.

⁵⁷ Linda Jones, Henrikus and Kirketerp mentioned the increased complexity of editing, updating and proof-reading caused by translation. Ms. Jones stated that short texts were main priority, and DGT had to shorten and edit some texts, creating problems of accuracy. Bartak was also interested in the quality of work.

⁵⁸ Commissioners Sim Kallas, Spidla and Piebalgs have all standardized their language regimes substantially down to four languages.

7. Transparency, accountability, participation and language regimes (formation)

Transparency and accountability are two key elements in democratic theory, usually related to institutional arrangements (Fearon 1999; Hellwig 2007). The Lisbon Treaty gives new prospects for accountability in the Commission, while new expectations of political deliberation are meant to increase contact between citizens and EU representatives. This is also visible in several Communications related to transparency and dialogue (European Commission 2006a and b, 2007). In 2005 there was an initiative of which initiatives could be taken to increase European transparency (European Commission 2005b). Most of these initiatives are directed at increasing transparency of the circulation of money and resources, and seldom related to the language asymmetry. In all these efforts to democratize the Commission, the language question seems to yield unequal access to information for citizens due to the information asymmetry caused by the triggering efficiency and commitment in different domains. Which democratic consequences do efficiency and commitment force on transparency and accountability in language regime formation? Which variables are more likely to produce most transparent language regimes, enhancing accountability and participation for most language groups? The general tendency is higher level of diversification at top level, thus increased standardization at lower levels, a process also stated by most respondents. What will this tendency mean to transparency?

Political units (COMMs) are usually more multilingual at top layer to sell their policies thus increasing the possibilities for transparency and participation. However, although website top layers usually are quite multilingual, they also tend to be very static thus not reflect the whole political process. Contrary, dynamic information is a dilemma causing drastic standardization due to the overwhelming need for efficiency. The information asymmetry seen in dynamic information related to blogs, news and press releases gives therefore limited possibilities monitoring policies and participate in the ongoing political debate for most language groups not familiar with one of the central languages. Real deliberative politics consists of dynamic and changing information in dialogue with citizens. Treaties and Regulations are the end result of an ongoing political process, a process not possible to access for many language groups disconnected from the central languages.

Although there are substantial variations, both *Culture* and *Economy* seem to display increased overall transparency. Units directed at culture are expected to represent cultural and territorial diversity, and are therefore more focused on transparent language regimes for all member languages also at lower levels. This would lead to less disconnectedness for language groups with few citizens familiar with central languages, since more citizens from territories with poor language skills in central foreign languages would be able to access information in their own official language even at C2 and C3. The same consistent increase in language is seen for *Economy*, also increasing transparency for information related to economic activity. Based on theory of a more stable market as people are able to access information in their own language, it is quite natural with increased access to information monitoring economic performance in many languages. Most people value economic performance as one of the most important issues in politics (Stokes 1999).

From the regression analysis, neither *World Language* nor *External Relations* seem to affect language transparency to a substantial degree. As stated earlier, however, several *External Relations* websites display mixed (quasi) language regimes with both diversification and standardization within the same language regime. These mixed regimes do not seem to enhance transparency significantly. Especially not at top level, since most of the multilingual information relates to layout and headings. As a symbolic visualization of “united in diversity” it works, but not as a tool to increase access to political information. Some *External Relations* websites are able to increase transparency lower down in the structure, due to the increase of general and static information pages in several languages at C2. Contrary, *World Language* does not seem to decrease transparency significantly as first expected, although the last changes in language regimes are not over yet.

A substantial part of Commissioners seem to have standardized their websites quite drastically after the end of last data collection⁵⁹, a tendency not that visible for DG websites. Such a large standardization seems to have quite profound consequences for several member states and their citizens due to their insufficient foreign language training in the central languages at the time. It is also challenging that this standardization for the most part happens within COMM websites. Politicians are supposed to structure political packages to the people, helping them to simplify.. With a drastic standardization such packages will not be available

⁵⁹ See http://ec.europa.eu/archives/commission_2004-2009/index_en.htm.

for all due to an even more asymmetric information asymmetry. Ginsburg and Weber estimates that as many as 60 percent of the population in Belgium, Italy, Portugal and Spain, would be unable access and take part political deliberation in an English only language regime⁶⁰, and the same tendency would be true in Eastern Europe (Ginsburg and Weber 2005: 279). A large proportion of citizens would, however, be able to participate with a three-language regime of English, French and German, especially in Eastern Europe with a historic past of German foreign language learning. Still, approximately 50 percent of the population in member states like Greece, Italy, Portugal and Spain would not be able to access information even in a three language regime (ibid: 282).

Both de Swaan, Ginsburgh and Weber observe a new tendency analysing foreign language skills in the young generation, being more competent in especially English (Ginsburg and Weber 2005: 283; de Swaan 2001: 162). Nonetheless, drastic language standardization among COM and DG websites seems to produce challenges to transparency and thus participation for many EU citizens disconnected from the central languages. A crucial question is whether success in foreign language training in central languages must come before standardization of political institutions. As mentioned a certain success is see in the language competence in foreign languages (Ginsburgh and Weber). This process of language standardization will force new measures to be taken in language regime formation.

⁶⁰ Ginsburgh and Weber bases their estimations on survey data from Eurobarometer 54, conducted by INRA (Europe) (INRA 2001), on behalf of Directorate of Education and Culture. Each of the 15 European countries conducted 1000 interviews.

8. Conclusion

The efficiency and commitment mechanisms seem to be triggered by several factors, thus influencing language regime formation on COMM and DG websites. However, large Standard Errors among several variable at different levels seem to emphasize the large variation within many variables. Two hypotheses stand out in the analysis. Both *General Message* and *Dynamic-Static* seem to have the strongest impact on language regime formation, triggering opposite mechanisms. *General Message* is likely to trigger commitment to multilingualism, thus spurring diversification especially at C1 and C2. Dynamic information shows a substantial triggering effect on efficiency, thus causing radical standardization at C2-C3. These variables are also two of the three pillars in EU language regime formation, confirming EU strategy on multilingualism outside Regulation No1. Although less prominent, both *Culture* and *Economy* seem to have a surprisingly high degree of diversification especially at C3. Several variables at C1 display low B values, but show diverging characteristics at levels lower down. *Culture* shows low degree of multilingualism and high Standard Error at C1, hence increasing diversification at C2-C3, while both *World Language* and *External Relations* do not display any specific effect in the analysis.

Another important empirical finding is the standardization seen among Commissioners relative to DGs between the two data collections. This study has tried to analyse some of the factors determining availability of languages on the websites and some of the potential consequences of these choices. Furthermore, the analysis shows the relationship between website language regimes and unequal degree of transparency. The information asymmetry creates unequal opportunities between language groups. Both *General Message* and *Dynamic-static* are constrained by efficiency and commitment leading to diversification at static top level and standardization at dynamic pages lower down. Instead of full multilingualism there seems to be focused multilingualism in specific domains and websites. An even strengthening of multilingualism in some domains and website fully multilingual, standardizing others due to efficiency and cost effectiveness is one way of combining efficiency and commitment. Each nation state is a key actor that might have to bear the responsibility and the cost of improving transparency for their member state language even more. Cooperation and borrowing between websites might increase language regimes to the lowest cost, increasing efficiency. However, member state interest in their member language might be a crucial aspect to increased multilingual transparency in the future, probably doomed to pay the cost.

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⁶¹ Due to lack of space, only the general link to all Commissioners of the former Barroso Commission is listed. It is also placed in archive.

⁶² Only the general link to all Directorate General websites is listed due to lack of space.

Interviewees and e-mail contacts from Brussels (29.06-06.07.2009)

Anderson, Ian: External communications adviser at DG Interpretation.

Bartak, Karel: Information and communication unit at DG Education and Culture (EAC)

Bruno Fetelian: Multimedia communication/ web and contact centre at DG Communication.
He is also involved in the restructuring of the europa.eu-website.

Gangl, Robert: Web coordinator DG Economy and Finance (ECFIN).

Granqvist, Tytti: External Communication for DG Translation (DGT).

Hinrikus, Hanna: Personal assistant to Vice President Siim Kallas responsible for
Administration Internal Audit and Anti Fraud.

Jones, Linda: Webmaster for COMM, DG and thematic website at DG Information Society.

Kirketerp, Christiane: Assistant in COMM Agriculture and Rural Development.

Mac, Christina: Website coordinator for COMM Multilingualism. Only e-mail
communication.

Mann, Michael: Spokes person for COMM Agriculture and Rural Development.

Van Osta: Web content manager/ webmaster, creates and manages web content and overall
responsible for public DGT website. He recently launched the restructured DGT website.

Stockwell, Jonathan: web editor and translator into English from the web translation unit at
DG Translation. (Also involved in the work being done by Bruno Fetelian`s team to
restructure top layer on europa.eu-website).

Appendix

A. Appendix: COMMs related to Culture

Culture is associated with culture, communication, and symbolic activities. Units related to culture are therefore characterized by being closely connected to culture, communication, education and symbolic activities, all characteristics of diversity. The main criteria for being a unit directed at culture, is a visible characteristic of a unit, usually seen in the unit website vision or mission statement, relating the unit to the above characteristics of culture, communication, education or symbolic activities. This is made in contrast to units involved in economy, law, administration, external relations or technology. Research has also been excluded on the grounds that it largely deals with technological and/or programs associated with economic enterprises, although humanities are mentioned (last) in the main objectives on the COMM Science and Research website.

Independent variable: COMMs related to Culture

Culture/ not	Portfolio	Commissioner	Comments
-	-	Commission	
0	President	Jose Barroso	Not specifically related to culture
1	VP + Instit. and communication	Margot Walström	Promotes both “Plan D”, stimulating democracy, dialogue and debate, and “Debate Europe”, all related to language, communication and symbolic activity, and is therefore defined as being related to culture.
0	VP + enterprise and industry	Günter Verheugen	Not related to culture.
0	VP + Justice, freedom and security	Jacques Barrot	Not related to culture.
0	VP + admin. audit and anti-fraud	Siim Kallas	Not related to culture.
0	VP + transport	Antonio Tajani	Not related to culture.
1	Info. society and media	Viviane Reding	Related to communication and symbolic activity, and therefore defined as culture.
0	Environment	Stavros Dimas	Not related to culture.
0	Economic and monetary affairs	Joaquin Almunia	Not related to culture.

0	Regional policy	Danuta Hübner	Regional Development is not categorized as culture, although related to “Plan D”, similar to Commissioner Wallström. This is done because she is defined as more related to administration than culture and communication. Hence she is coded not related to culture.
0	Maritime affairs and fisheries	Joe Borg	Not related to culture.
0	Financial program. and budget	Daila Grybauskaitė	Not related to culture.
0	Science and Research	Janez Potocnik	Research and Science is difficult to categorize, since it is very natural to define the portfolio as part of education, closely related to Rokkans` concept of culture. Research and Science is mainly focused on technology, industry, biology, health and environment. The only two projects being closely connected to culture were an e-learning program, also related to technology, and scientific study of teachers` interest in the subject taught, of course related to science. Very little attention and focus is given to subjects related to culture, hence coded as not related to culture.
1	Education, training, culture and youth	Jan Figel	Related to culture.
0	Enlargement	Olli Rehn	Not related to culture.
0	Development and human. Aid	Louis Michel	Not related to culture.
0	Taxation and customs union	Làszlò kovàcs	Not related to culture.
0	Competition	Neelie Kroes	Not related to culture.
0	Agriculture and rural development	Mariann F Boel	Not related to culture.
0	External relations and neighbourhood policy	Benita F-Walder	Not related to culture.
0	Internal market	Charlie	Not related to culture.

	and services	McCreevy	
0	Employment, social affairs and equal opport.	Vladimir Spidla	Not related to culture.
0	Energy	Andris Piebalgs	Not related to culture.
0	Consumer protection	Meglana Kuneva	Not related to culture.
1	Multilingualism	Leonard Orban	Related to symbolic activity and culture.
0	Health	Androulla Vassiliou	Not related to culture.
0	Trade	Catherine Ashton	Not related to culture.

B. Appendix: COMMs related to General Message (Generality)

Units promoting a general message to all people are distinguished from units communicating more specific and technical messages. Some units promote and advertise the added value or benefits of a specific and important message or topic included in their portfolio to the whole population. General and promotional messages are therefore opposed to specific and technical information, closer related to administration. The same mechanism is used when other units communicate their accountability and transparency to legitimize their work to the whole population. Summing up, this independent variable seeks to divide between those units that have a general message to the whole population and those which do not. The two criteria for being a unit having such a general message to the people are: First an explicit statement in a unit's vision or mission statement promoting a general message the unit wants to sell to the whole population. Second a visible project, campaign or idea on their website indicating a practical outcome of this general message in their vision or mission statement. It is not enough having a portfolio of general interest to all people, there must be an explicit act visible on the website of a deliberate effort to reach the whole population. This is made in contrast to units with more specific information to special target audiences, usually more related to management, maintenance or organization of their portfolio, and thus not promoting and selling an idea or "product" to all people.

Independent variable: General Message (Generality)

General/ not	Portfolio	Commissioner	Comments
-	-	Commission	(Commission report on recent achievements is of course in all 23 languages)
0	President	Jose Barroso	Barroso has been classified as specific rather than general although many would expect him to be coded general. The content of the President website is not constrained to general statements, but rather contains broader information on many different programs each with specific content. The president is therefore not concerned of selling one idea to the whole population, but is more focused on getting the Commission to work as a whole.
1	VP + Instit. and communication	Margot Walström	Her website promotes both "Plan D", stimulating democracy, dialogue and debate, and "Debate Europe". Intentionally both of these projects are targeted at all citizens.
0	VP + enterprise	Günter	Includes the <i>Care Growth and Jobs strategy</i> and <i>SME</i> ,

	and industry	Verheugen	facilitating good conditions for small and medium sized EU enterprises, to be strong competitors in a close partnership between EU and member states. However, the website seems more directed at member states than promoting an explicit and specific message or package to all people,
1	VP + Justice, freedom and security	Jacques Barrot	Barrot states that he will “maintain and develop European Union as an area of freedom, security and justice for its citizens. The fundamental objective is protecting EU citizens` interests; however he has no specific project or package selling his idea to the population. Nevertheless, he is categorized as having a specific message to all people based on his portfolio and website layout very easily available to all people.
1	VP + admin. audit and anti-fraud	Siim Kallas	Dealing with Administrational Audit and Anti-Fraud his website communicates transparency and accountability in EU institutions, assuring all citizens of EU a transparent and accountable Commission. He is therefore coded General Message.
0	VP + transport	Antonio Tajani	Although Transport is not the most obvious unit selling a message to all people, the Tajani website wants to reach all people with the importance of transport policy and its effect, and he proclaims a will devote time and energy to build closer relationships with citizens and NGOs. Still, the information is of more specific character and not defined as a general message targeted at all people.
1	Info. society and media	Viviane Reding	Seems to have a message to all people: New common regulations on international roaming tariffs. <p style="text-align: center;">"From today, all Europeans making calls or sending texts with their mobiles can experience the EU's single market without borders. The roaming-rip off is now coming to an end thanks to the determined action of the European Commission, the European Parliament and all 27 EU Member States"</p> <p style="text-align: right;">(Viviane Reding, on her website)</p> <p>The roaming-message is even placed at the entrance of the Berlamont building as a monument of the single market regulations, representing a deeper meaning of the added value of the internal market and united action among member states. The same focus is seen on her website, making it easy to place her as having a general message and living it out.</p>
1	Environment	Stavos Dimas	The Environment website promotes the message of global

			environmental concerns and the measures which are to be taken by all citizens, thus coded general message.
1	Economic and monetary affairs	Joaquin Almunia	Economic and Monetary Affairs promotes the qualities and characteristics of the Euro and the Monetary Union, hence the website is advertising these qualities to all people.
1	Regional policy	Danuta Hübner	Involved in “Plan D”, as Commissioner Wallström, and is coded having a general message.
0	Maritime affairs and fisheries	Joe Borg	Does not have a specific message or package to all people.
1	Financial program. and budget	Daila Grybauskaitė	Former Commissioner Grybauskaitė responsible for Financial Programming and Budget, and thereby leader of EU finances and budget promotes transparency similar to Commissioner Kallas. The new Commissioner taking over for Ms. Grybauskaitė basically promotes a moderate EU budget and shows all citizens that he takes transparency seriously.
0	Science and Research	Janez Potocnik	Science and Research fronts and thereby promotes the program FP7, aimed at a specific target group, not the whole population. Since simplification and less bureaucracy are some of the main goals of the project, the general public and multilingualism is left on the sideline. The strategy can therefore not be defined as targeting the whole population.
1	Education, training, culture and youth	Jan Figel	Former Commissioner Figel of Education, Culture, Youth and Training, advertises a “better understanding of other’s cultures”. Simultaneously he states that multilingualism is a “permanent value of EU”, and that he will give his “full contribution to its promotion”. Adding that multilingualism has been, and to some extent still is a part of Figel’s portfolio, he would undermine his portfolio and message if his website were not highly multilingual. Summing up, Mr. Figel therefore advertises the general message of diversity and multilingualism to all people.
0	Enlargement	Olli Rehn	Enlargement website does not seem to have an explicit project or message he tries to promote to the whole population. His statements might try to legitimate enlargement, but not through any deliberate advertisement.
0	Development and human. Aid	Louis Michel	Does not have a specific message or package to all people.
1	Taxation and customs union	László Kovács	The website is responsible for promotion of the taxation-system and the Customs Union to member states and the population.

1	Competition	Neelie Kroes	Nelli Croes of Competition views herself as the referee of the process of competition, making all players know the rules. These rules and calls are then in the core of her message and promotion strategy. At the same time special information is given to specialized audiences. Nevertheless she is categorized as having a message to all people.
0	Agriculture and rural development	Mariann F Boel	Does not have a specific message or package to all people.
1	External relations and neighbourhood policy	Benita F-Walder	External relations and neighborhood policy is not as autonomous as many of the other Commissioners, since external relations in many cases (and to a higher degree than other units) is part of member state decisions and joint decisions with member states in cooperation with the Council. Commissioner Ferrero-Walder seems to focus on being accountable for “European Union financial and technical support throughout the world”, and that it “is deployed wisely and effectively” (Ferrero-Walder website). This accountability also goes for the cooperation with the acting Presidency of the Council and the High Representative of EU’s Common Foreign Policy and Security Policy, Javier Solana. The Council is more sensitive to multilingualism, reflecting to a higher degree the interests of each member state. Summing up Commissioner Ferrero-Walder promotes accountability of recourses used outside the borders of the Union
0	Internal market and services	Charlie McCreevy	Although several economic units have been advertising the internal market and the Euro, the Internal Market website seems more directed at administrating the functioning of the market and target groups related to such a task. There might seem to be a division of competences between different COMMs and DGs leading Commissioner Creevy to be less concerned of advertising a general message to all people.
1	Employment, social affairs and equal opportunities	Vladimir Spidla	Spidla argues that his portfolio is the basis of the European project of human dignity, freedom, solidarity, equal opportunities and responsibility, and that the Commissioner helps EU to “stay true to these values” (web). The argumentation should lead to the explicit promotion of human rights on the website, although he does not seem very conscious of selling these ideas to the people. Nevertheless, his portfolio indicates a broad promotion of human rights, although the

			website lacks a very explicit promotion of these ideas, and the portfolio is categorized as having a general message to all people based on the very general message in the portfolio.
1	Energy	Andris Piebalgs	Energy promotes green energy based on their Action Plan running to 2020, stating that their aim is to limit climate change and high targets on greenhouse emission. Summed up, his message on his website is “everyone can make a difference”, targeted at all people, promoting green energy.
1	Consumer protection	Meglana Kuneva	The website of Commissioner Kuneva is quite a puzzle, responsible as she is for consumer rights. She promotes consumer rights to all, giving access to much consumer information to all people, but only in English and Bulgarian.
1	Multilingualism	Leonard Orban	Orban is the one selling the idea of multilingualism, and he would undermine his authority by being less than highly multilingual. He therefore promotes the general message of “diversity and multilingualism” to all people.
1	Health	Androulla Vassiliou	Still promoting the Health Strategy of 2007, COMM Health website promotes better health, patients rights and training authorities of food safety in the European Union, and animal health which is important for her, to a broad spectre of the population.
0	Trade	Catherine Ashton	Trade does not have a specific message or package to all people.

C. Appendix: COMMs related to Economy

Economy is associated with finance, industry, trade, welfare and economic audit. All non-economic areas of competence are not included, as well as funds diverted for regional purposes. Several COMMs and DGs deal with substantial amounts of funding, nevertheless, the essence or character of the COMM or DG is not economic activity. This is true in COMM Development and Humanitarian Aid, DG Development and DG Humanitarian Aid, all focusing on development of social and economic structures, and human recourses. This duality of character makes them hard to code on the variable Economy. However, they are coded as not related to economy, emphasizing the essence and character of the units. Units related to economy are therefore units characterized by being closely connected to economic activity. The main criteria for being a unit directed at economy, is a visible characteristic of a unit, usually seen in the unit website vision or mission statement, relating the unit to economic activity. This is made in contrast to units involved in culture, law, administration, external relations or technology.

Independent variable: Economy

Economy/ not	Portfolio	Commissioner	Comments
-	-	Commission	
0	President	Jose Barroso	Not specifically related to economy.
0	VP + Instit. and communication	Margot Walström	Not related to economy.
1	VP + enterprise and industry	Günter Verheugen	Closely related to economy.
0	VP + Justice, freedom and security	Jacques Barrot	Not related to economy.
1	VP + admin. audit and anti-fraud	Siim Kallas	Related to economy.
1	VP + transport	Antonio Tajani	The transport website is most concerned with developing communication infrastructure and transport to all people, facilitating economic activity. The website also displays the economic activity involved in transportation, and the employment of a substantial number of people, and it is therefore coded economy.
0	Info. society	Viviane	Not related to economy.

	and media	Reding	
0	Environment	Stavos Dimas	Not related to economy.
1	Economic and monetary affairs	Joaquin Almunia	Closely related to economy.
0	Regional policy	Danuta Hübner	Although closely related to economic sector, the main focus is regional and structural development. Structural development costs a lot of money and requires substantial funding, but its emphasis is on developing regions, and not economic activity. It is therefore coded as not related to economy.
1	Maritime affairs and fisheries	Joe Borg	One important concern in Maritime Affairs and Fisheries website is sustainable development of the oceans and seas, and conservation of the aquaculture. However, the primary goal is governing the exploitation of resources at sea, and regulation of the markets in fishery and aquaculture. Therefore it is coded primarily related to economy.
1	Financial program. and budget	Daila Grybauskaitė	Related to economy.
0	Science and Research	Janez Potocnik	Not related to economy.
0	Education, training, culture and youth	Jan Figel	Not related to economy.
0	Enlargement	Olli Rehn	Not related to economy.
0	Development and human. Aid	Louis Michel	Although Development involves substantial amount of funding, the unit is coded not directed at economy. This is done based on the argument that the unit mainly is focused on development and humanitarian aid, and not economic activity. Economic activity is the mean to achieve the goals of sustainable development and aid.
1	Taxation and customs union	László Kovács	Related to economy.
1	Competition	Neelie Kroes	Related to economy.
1	Agriculture and rural development	Mariann F Boel	Agriculture and Rural Development is hard to place. Although the unit is associated with the economic sector and economic activity, and a large proportion of its work is transfer of funding and money, a substantial part of its portfolio consists of regulations put on farming and regional development related to health, food safety, environment and structural

			policies. Therefore it is quite problematic to categorize it as either economy or not. Nevertheless, it is coded as related to economy because of the overall focus on the agrarian industry, and thus more closely tied to economic sector.
0	External relations and neighbourhood policy	Benita F-Walder	Not related to economy.
1	Internal market and services	Charlie McCreevy	Related to economy.
1	Employment, social affairs and equal opportunity	Vladimir Spidla	Mostly focused on welfare systems and redistribution, very closely connected to economy, hence coded as related to economy.
1	Energy	Andris Piebalgs	Although the complex goal of the Commissioner seems to include both enhancing a competitive <u>and</u> sustainable internal energy market, benefitting consumers, industry and our planet, the website priorities seems to slightly favour economic interests, thus coded related to economy. The call is close and is not necessarily the only right one.
1	Consumer protection	Meglana Kuneva	Related to economy.
0	Multilingualism	Leonard Orban	Not related to economy.
0	Health	Androulla Vassiliou	Not related to economy.
1	Trade	Catherine Ashton	Related to economy.

D. Appendix: COMMs related to External Relations (Externality)

Units related to External Relations are characterized by being closely connected to External relations and communication outside EU territory. The main criterion for being a unit directed at External Relations is a visible characteristic of external communication outside EU territory, usually seen in the unit website vision or mission statement. This is made in contrast to units involved in internal or domestic activities.

Independent variable: External Relations (Externality)

External/ not	Portfolio	Commissioner	Comments
-	-	Commission	
0	President	Jose Barroso	Not primarily related to external relations.
0	VP + Instit. and communication	Margot Walström	Primarily focused on internal communication and not external relations.
0	VP + enterprise and industry	Günter Verheugen	Not primarily related to external relations.
0	VP + Justice, freedom and security	Jacques Barrot	Not related to external relations.
0	VP + admin. audit and anti-fraud	Siim Kallas	Not related to external relations.
0	VP + transport	Antonio Tajani	Not related to external relations.
0	Info. society and media	Viviane Reding	Not related to external relations.
0	Environment	Stavros Dimas	Although environment is a global responsibility, the website primarily focuses on the internal environmental work in the Union; how to develop a more environmental friendly/conscious and healthier EU.
0	Economic and monetary affairs	Joaquin Almunia	Not related to external relations.
0	Regional policy	Danuta Hübner	The website is more closely connected to domestic activities and is therefore coded not related to external relations.
0	Maritime affairs and Fisheries	Joe Borg	Maritime Affairs and Fisheries is also difficult to code, since most oceans are situated between different states, leaving external cooperation a natural part of sustainable marine

			development, also visible on the website. However, on his priorities, Commissioner Joe Borg is mainly focused on creating a coherent strategy of maritime affairs in the Union, enhancing a prosperous fishing industry and aquaculture in balance with nature. External communication with other outside states seems therefore to have a secondary role in the portfolio, although the Commissioner is involved in fisheries agreements with several states outside the EU territory, for example the conservation of marine life in the Antarctic, the survival of the Atlantic Tuna, together with balanced ecology in the North-East Atlantic. The COMM is therefore coded as not primarily related to external relations.
0	Financial program. and budget	Daila Grybauskeitè	Not related to external relations.
0	Science and Research	Janez Potocnik	Not related to external relations.
0	Education, training, culture and youth	Jan Figel	Not related to external relations.
1	Enlargement	Olli Rehn	Related to external relations.
1	Development and human. Aid	Louis Michel	Related to external relations.
0	Taxation and customs union	Làszlò kovàcs	Not related to external relations.
0	Competition	Neelie Kroes	Not related to external relations.
0	Agriculture and rural development	Mariann F Boel	Not related to external relations.
1	External relations and neighbourhood policy	Benita F-Walder	Related to external relations.
0	Internal market and services	Charlie McCreevy	Not related to external relations.
0	Employment, social affairs and equal opport.	Vladimir Spidla	Not related to external relations.
0	Energy	Andris	Not related to external relations.

		Piebalgs	
0	Consumer protection	Meglana Kuneva	Not related to external relations.
0	Multilingualism	Leonard Orban	Not related to external relations.
0	Health	Androulla Vassiliou	Not related to external relations.
1	Trade	Catherine Ashton	Trade can be grouped in either of the two groups external or domestic. Nevertheless, Trade is placed by DG as related to External affairs on the DG website. Adding the close relationship between trade and international economy, also seen on the website, it is reasonable that Trade is coded External relations.

E. Appendix: COMMs related to World Language

COMM and DG leaders coming from countries having either English, German or French as their official member language are coded as world language. The only criterion is therefore the official language of the unit leader. This is made in contrast to units having any of the other 20 official member languages in the union. This criterion is built on statistics and literature that shows that the three languages defined as world languages are the only ones being mother tongue in more than one member state in the union, and secondly, used quite substantially as foreign language in other EU member states than their own (Eurobarometre 243; Kraus 2006:). Neither Spanish nor Italian fit these criteria.

Independent variable: World Language

World Lang/ not	Portfolio	Commissioner	Comments
	-	Commission	
0	President	Jose Barroso	Portuguese, not coded world language.
0	VP + Instit. and communication	Margot Walström	Swedish, not coded world language.
1	VP + enterprise and industry	Günter Verheugen	German, coded world language.
1	VP + Justice, freedom and security	Jacques Barrot	French, coded world language.
0	VP + admin. audit and anti-fraud	Siim Kallas	Estonian, not coded world language.
0	VP + transport	Antonio Tajani	Italian, not coded world language.
1	Info. society and media	Viviane Reding	German, French and Luxembourgish, coded world language based on German and French influence.
0	Environment	Stavos Dimas	Greek, not coded world language.
0	Economic and monetary affairs	Joaquin Almunia	Spanish, not coded world language.
0	Regional policy	Danuta Hübner	Polish, not coded world language.
1	Maritime affairs and fisheries	Joe Borg	English and Maltese, coded world language based on the strength of English.
0	Financial	Daila	Lithuanian, not coded world language.

	program. and budget	Grybauskeitė	
0	Science and Research	Janez Potocnik	Slovenian, not coded world language.
0	Education, training, culture and youth	Jan Figel	Slovak, not coded world language.
0	Enlargement	Olli Rehn	Finnish, not coded world language.
1	Development and human. Aid	Louis Michel	French, Dutch and German, coded world language based on the strength of French.
0	Taxation and customs union	László Kovács	Hungarian, not coded world language.
0	Competition	Neelie Kroes	Dutch, not coded world language.
0	Agriculture and rural development	Mariann F Boel	Danish, not coded world language.
1	External relations and neighbourhood policy	Benita F-Walder	German, coded world language.
1	Internal market and services	Charlie McCreevy	English and Gaelic, coded world language based on the strength of English.
0	Employment, social affairs and equal opport.	Vladimir Spidla	Czech, not coded world language.
0	Energy	Andris Piebalgs	Latvian, not coded world language.
0	Consumer protection	Meglana Kuneva	Bulgarian, not coded world language.
0	Multilingualism	Leonard Orban	Romanian, not coded world language.
0	Health	Androulla Vassiliou	Greek and Turkish, not coded world language.
1	Trade	Catherine Ashton	English, coded world language.

F. Appendix: DGs related to Culture

	Portfolio	DG	Comments
0	Agriculture and rural develop.	Jean-Luk Demarty	Not related to culture.
0	Competition	Philip low	Not related to culture.
0	EcFin	Marco Buti	Not related to culture.
1	Education and Culture	Odile Quintin	Obviously related to culture.
0	Employment, social affairs and equal opportunity	Nikolaus van Der Pas	Not related to culture.
0	Energy and transport	Matthias Ruete	Not related to culture.
0	Enterprise and industry	Heinz Zourek	Not related to culture.
0	Environment	Jos Delbeke	Not related to culture.
0	Executive agencies	-	Not related to culture.
0	Maritime affairs and fisheries	Fokion Fotiadis	Not related to culture.
0	Health and consumers	Robert Madelin	Not related to culture.
1	Info society and media	Fabio Colasanti	Information Society and Media is related to culture, both through the spread of media and communication, and the new cultural aspects on cyber space.
0	Internal market and services	Jörgen Holmquist	Not related to culture.
0	Joint research centre	Roland Schenkel	Joint Research Centre is part of the Commission, and gives advice and Know-how to EU policies, and is thus more focused on technology and economic activity than culture. Since the primary focus is on other policy areas than culture, the DG is coded as not being related to culture, although Rokkan`s concept/ codification of culture to a large extent would include science and research.
0	Justice, freedom and security	Jonathan Faull	Not related to culture.
0	Regional policy	Dirk Ahner	Not related to culture.
0	Research	Silva	DG Research develops the EU policy on research and coordinates

		Rodríguez	research activities, and strengthens other policy areas like energy, health etc. Nevertheless, another task of equal importance is to promote the role of science in society and stimulate debate on issues related to research. However, although the unit is involved in communication, none of the research activities seems to be directed specifically at culture. On the DG Research` mission statement there are only statements related to science, technology, environment, health, energy and regional development, hence no explicit statement of culture or communication, or any other topic related to culture. Therefore, based on the substantial focus on technology, the DG is categorized as not primarily related to culture.
0	Taxation and customs union	Robert Verrue	Not related to culture.
0	Development	Manservisi Stefano	Not related to culture.
0	Enlargement	Michael Leigh	Not related to culture.
0	EuropeAid and external co-op office	Koos (Jacobus) Richelle	Not related to culture.
0	External relations	Eneko Landaburu	Not related to culture.
0	Humanitarian Aid	Peter Zangl	Not related to culture.
0	Trade	David O`Sullivan	Not related to culture.
1	Communication	Claus H Sørensen	DG Communication is seen as related to culture because of the close relationship between culture and communication, also visible on the unit website, and is thus coded as being related to culture.
0	Europe anti-fraud office	Franz-H Brüner	Not related to culture.
0	Eurostat	Walter Radermacher	EuroStat is also related to communication. However, EuroStat is first of all focused on economic statistics and structural indicators, thus a very small proportion of the vast statistical material is left to statistics related to culture. Based on the statistical and technical content of the EuroStat website the DG is coded as not related to culture
1	Publications office	Martine Reicher	DG Publications Office is not very clear cut. However, Publications Office is associated with symbolic activity, printing all written

			information serving institutions, states and citizens in the Union, and is thus related to culture. Hence, based on the close relationship between publication, communication and symbolic activity it is coded as related to culture.
0	Secreteriate general	Cathrine Day	Not related to culture.
0	Budget	Luis R Requera	Not related to culture.
0	Bureau of EU policy advisers	Vitor Gaspar	Not related to culture.
0	Informatics	Fransisco G Morgan	DG Informatics provides the European institutions with the Information and Communication Technology needed to help the institutions operate as efficiently as possible, and promote and facilitate e-Government services for citizens and enterprises. Still the focus is on technical matters, directed at European institutions, rather than culture and communication.
0	EU Comm. data protection officer	Peter Hustinx	Not related to culture.
0	Infrastr. logist - Brussels	Gabor Zupkó	Not related to culture.
0	Infrastr. logist – Luxembourg	Marian O` Leary	Not related to culture.
0	Internal audit service	Walter Deffaa	Not related to culture.
1	Interpretation	Marco Benedetti	Interpretation is in its character very cultural, based on language and communication.
0	Legal service	Clarie-F Durand	Not related to culture.
0	Admin and payment of ind. Entitlements	Dominique Deshayes	Not related to culture.
0	Personnel and admin	Claude Chène	Not related to culture.
1	Translation	Juhani Lönnroth	translation is in its character very cultural, based on language and communication.

G. Appendix: DGs related to General Message (Generality)

	Portfolio	DG	Comments
0	Agriculture and rural develop.	Jean-Luk Demarty	Does not promote a general message to all people.
1	Competition	Philip low	Promotes a general message to all people.
1	EcFin	Marco Buti	Communicates the added value of the Euro and the internal market to all citizens.
1	Education and Culture	Odile Quintin	Promotes a general message to all people.
1	Employment, social affairs and equal opport.	Nikolaus van Der Pas	The new website is very beautiful and user friendly and targeted at all citizens, promoting employment to/for all.
0	Energy and transport	Matthias Ruete	Energy and Transport consists of two portfolios, one of them (energy) seems more important advertising to the whole population. Nevertheless, investigating the website, the responsibility of the DG seems more like facilitating and organizing environmental energy and transportation policies, than communicating the added value of green, environmental energy and transport to all people. It is therefore coded not advertising a general message to all.
0	Enterprise and industry	Heinz Zourek	Basically assuring that the market is running smoothly. Although the DG encourages innovation and searching for new entrepreneurs, the audience is quite specialized.
0	Environment	Jos Delbeke	Probably one of the most important messages of our time communicating the added value of healthy stewardship of our planet. Nevertheless, the DG is first of all enforcing the laws already in place by investigating possible offences and to ensure that legal action is taken. Communicating and promoting the added value of sustainable development and green environment is then left to the Commissioner.
0	Executive agencies	-	Serves very specific audiences of different agencies centred in Brussels or Luxembourg.
0	Maritime affairs and fisheries	Fokion Fotiadis	First of all implementing the maritime policy of the Commission alongside the management of fishery in the Union, targeted at special stakeholders at regional and European level.
0	Health and consumers	Robert Madelin	The DG consists of two portfolios: to ensure food safety and protection of human health through close cooperation with experts,

			and consumers rights. Although both potentially might promote a general message to all people, the website is not promoting any specific and general message to all. Once again, a DG that is mainly targeted at specialized audiences.
1	Info society and media	Fabio Colasanti	The DG promotes to some extent a wider use of information society and the internet through the programmes eContentplus and Safer Internet plus, Even though a vast part of its work is tied to regulation and research. Still the DG is coded as having a general message.
0	Internal market and services	Jörgen Holmquist	Although the DG is meant to inform all citizens and businesses of their rights in the Internal Market, it seems to play a secondary role on their website. The main tasks of the DG include co-ordination of the economic policy of the Commission and securing the internal market, simultaneously implementing a European legal framework in several economic services, and not promotion of rights, thus coded not having a general message to all people.
0	Joint research centre	Roland Schenkel	The JRC is part of the Commission and gives advice and Know-how to EU policies, and is therefore not focused on communicating to all citizens.
1	Justice, freedom and security	Jonathan Faull	The DG has a user friendly website, aimed at promoting human rights (freedom, justice and security) to all people.
0	Regional policy	Dirk Ahner	The DG is responsible for several funds and the co-ordination group aimed at the disadvantaged peripheral regions. The DG communicates therefore for the most part with specialised audiences, and not promoting regional cohesion to all citizens.
0	Research	Silva Rodríguez	Although one of the goals of DG Research is to promote the role of science in society and stimulate debate on issues related to research, and thereby communicating the role of science to all citizens, the primary task of DG Research is to develop the EU policy on research and coordinate research activities, and strengthen other policy areas like energy, health etc. The website seems therefore to be more directed at coordination of science and research activities and thus not primarily advertising a general message to all.
1	Taxation and customs union	Robert Verrue	The DG has several important tasks; one of them is showing accountability in tax collection, anti-fraud and customs control. Another role of equal importance is communicating information to all citizens of their rights. Summing up, the DG has several areas containing important information that is given to all citizens.
1	Development	Manservisi	DG Development website “aims to demonstrate the added value of

		Stefano	Europe working together to tackle the major challenges facing the world” ⁶³ , a focus also given practical outcomes on the website. Adding their slogan “Together for a better world”, there is little doubt the primary focus is advertising to all people a united Europe working together tackling global challenges.
0	Enlargement	Michael Leigh	The DG focuses first of all on specific audiences, even though the portfolio to some extent requires communication of transparency and accountability of how the enlargement process is evolving. Nevertheless, the main focus is specialized target groups especially interested and involved in the enlargement processes, and not every European citizen.
1	EuropeAid and external co-op office	Koos (Jacobus) Richelle	The DG cooperating with several partners at different levels: in civil society, international organisations and governments of EU member states. The portfolio also requires some sort of accountability of how the money is spent aimed at citizens. At the same time the website is quite user friendly for less involved or informed users. Summing up, these three facts show that the DG is communicating their message to all citizens in different ways.
0	External relations	Eneko Landaburu	External Relations is not clearly communicating a message to all citizens, even though it might seem natural that such an important portfolio, sharing responsibilities with different European institutions and member states, would focus on communicating accountability and transparency to all. Even though the website is easy to use and transparent, the target group seems to be special audiences related to foreign relations more than citizens of the Union.
1	Humanitarian Aid	Peter Zangl	Humanitarian Aid website is made to communicate “the message that people are our priority” ⁶⁴ . This site is using photos and multimedia to get across their message to all citizens. Clearly a site not targeted first of all, if at all, at special audiences but the common person in the street. Deeper into the website structure there are at the same time information focusing on target audiences.
0	Trade	David O’Sullivan	Trade is first of all monitoring and ensuring that policies and trade agreements are applied, also taking part in the negotiations of these trade agreements. At the same time it is providing the public with the information needed for a well functioning economic system. The overall conclusion is that the website first of all is focused at

⁶³ http://ec.europa.eu/development/about/mission_en.cfm

⁶⁴ http://ec.europa.eu/echo/about/what/presentation_en.htm

			specialized audiences related to economic activity and not the general public.
1	Communication	Claus H Sørensen	DG Communication is seen as related to culture because of the close relationship between communication, culture and symbolic activity, also visible on the unit website, and is thus coded as being related to culture.
0	Europe anti-fraud office	Franz-H Brüner	European Anti-Fraud Office, fighting fraud in the institutions, has a twofold purpose: internal investigation of the institutions economic activities, and legitimating the EU-system for all citizens by showing independency, transparency and accountability. Even though the latter task is important it seems like the attention and emphasis is put on the former task of internal investigation. There might be a division of tasks between the Commissioner and the DG, where the Commissioner is more focused on showing accountability to the people while the DG is focused on the internal investigation.
0	Eurostat	Walter Radermacher	EuroStat is first of all aimed at highly specialized audiences able to interpret economic and social statistical indicators, and is therefore not directed at the general public.
1	Publications office	Martine Reicher	Publications Office is created to provide the public with all the necessary information as/by physical (paper) or electronic publications. The service is aimed at both specialized and general public, serving all people. The DG itself does not have one special message, but it is distributing all messages of all the other units to all people. Summing up, Publications Office is distributing all important messages in all languages, promoting the message of information availability in a multilingual Union, hence giving legitimacy to the multilingual language policy.
0	Secreteriate general	Cathrine Day	Secretariat General is first of all helping the Commission in its work. Although it focuses on transparency, the target groups are specialized users and not all citizens. At the same time the website provides much information about the work of the Commission for advanced users.
0	Budget	Luis R Requera	Budget is managing and implementing the budget of the Union, also coordinating expenditure between departments, and finally reporting on the implementation to the Court of Auditors for a Declaration of Assurance. Mostly all activities are aimed at the internal work of the institutions and not the public, and Budget is therefore coded not having a general message to all people.
0	Bureau of EU	Vitor Gaspar	Bureau of European Policy Advisers is created to inform the

	policy advisers		Commission of their policies and political decisions, mainly by giving policy advice to the President and the Commission Services, in interaction with other institutions and academic sectors. The DG is directed at internal and co-institutional matters only.
0	Informatics	Fransisco G Morgan	Informatics provides the European institutions with the Information and Communication Technology needed to help the institutions operate as efficiently as possible, and promote and facilitate e-Government services for citizens and enterprises. Still the focus is on internal matters, directed at European institutions.
0	EU Comm. data protection officer	Peter Hustinx	European Commission Data Protection Officer is basically an internal DG ensuring the protection of personal data according to Regulation (EC) 45/2001. At the same time, in the name of transparency, an on-line register is made available of all processing operations on personal data of appointed personnel. Even though it is open to the public, the register seems to be available mainly for internal purposes, and not for the general public.
0	Infrastr. logist – Brussels	Gabor Zupkó	Is aimed at ensuring good accommodation, infrastructure and logistics of the EU institutions in Brussels and social welfare at the Ispra site in Italy, and thus not communicating a general message to all people.
0	Infrastr. logist – Luxembourg	Marian O` Leary	Is aimed at ensuring good accommodation, infrastructure, social welfare infrastructure and logistics in Luxembourg, and thus not communicating a general message to all people.
0	Internal audit service	Walter Deffaa	Internal Audit Service is both working for an effective economic management internally in the institutions and promoting transparency to the people through a culture of efficient and effective management. Nevertheless, the DG seems to be primarily for internal purposes, even though the end result is meant to be increased trust in the administration of the Union.
1	Interpretation	Marco Benedetti	Interpretation is in its character trying to reach all people by interpretation, and can be said to promote multilingualism and language acquisition. Nevertheless, the DG itself is to a high degree directed at internal matters in the institutions and specialists in interpretation and language. Therefore it is hard to place the DG in either of the categories. Nevertheless it is categorized as communicating a specific message of multilingualism and language acquisition to all people. This is done especially because the website itself is very communicative and targeted at all users wanting to know more about languages. This is in opposition to DG Translation consisting of a more specialized website aimed at

			translators.
0	Legal service	Clarie-F Durand	Legal Service is an internal DG providing legal advice to the Commission and representing the Commission in all court cases, its target audiences can therefore be considered to be politicians, lawyers and judges.
0	Admin and payment of ind. Entitlements	Dominique Deshayes	Administration and Payment of Individual Entitlements is directed at staff members in the EU institutions, hence not the general public.
0	Personnel and admin	Claude Chène	Personnel and Administration is directed at staff members in the EU institutions, hence not the general public.
0	Translation	Juhani Lönnroth	Translation is in its character trying to reach all people by translation. Nevertheless, the DG itself is directed to a high degree at specialists in translation and language. Therefore it is hard to place the DG in either of the categories. However, DG translation website is more targeted at specialists than DG interpretation, hence it is categorized as a DG directed at special audiences of translators and people knowledgeable in languages, not directed to all people.

H. Appendix: DGs related to Economy

	Portfolio	DG	Comments
1	Agriculture and rural develop.	Jean-Luk Demarty	Coded as related to economy, based on the same argument as COMM Agriculture and Rural Development.
1	Competition	Philip low	Related to economy.
1	EcFin	Marco Buti	Related to economy.
0	Education and Culture	Odile Quintin	Not related to economy.
1	Employment, social affairs and equal opportunity	Nikolaus van Der Pas	Closely related to economy, the same as COMM Spidla.
0	Energy and transport	Matthias Ruete	Not related to economy.
1	Enterprise and industry	Heinz Zourek	Related to economy.
0	Environment	Jos Delbeke	Not related to economy.
0	Executive agencies	-	Not related to economy.
1	Maritime affairs and fisheries	Fokion Fotiadis	As the Commissioner, the DG is focused on sustainable development and environmental considerations at sea, but the main concern on the website is still economic exploitation of the seas and governing and regulating the market.
0	Health and consumers	Robert Madelin	Health and Consumers is difficult to place, since it contains two portfolios of different character. However, DG Health and Consumers website seems more focused on health and food than consumers, and is thus not coded as related to economy. Nevertheless, this choice can be questioned since consumer affairs is visible on the website with its own sub-site, although the primary focus seems to be on health and food safety.
0	Info society and media	Fabio Colasanti	Not related to economy.
1	Internal market and services	Jörgen Holmquist	Related to economy.
0	Joint research centre	Roland Schenkel	Not mainly related to economy.
0	Justice, freedom and security	Jonathan Faull	Not related to economy.
0	Regional policy	Dirk Ahner	Although most of the work is related to funding and economic

			transfers, the fundamental character of Regional Development is rebuilding new regions and infrastructures, although developing sustainable economic activity in the regions also is a prime goal. Still coded as not related to economy.
0	Research	Silva Rodríguez	Not related to economy.
1	Taxation and customs union	Robert Verrue	Related to economy.
0	Development	Manservisi Stefano	Development is both transfer of economic resources and governmental and non-governmental collaboration. However, the basic character of the DG is external aid and development, not economic activity, hence coded non-economic, although economic activity is fundamental in development projects. See also DG Humanitarian Aid for elaboration on the difference of economic non-economic activity.
0	Enlargement	Michael Leigh	Not related to economy.
0	EuropeAid and external co-op office	Koos (Jacobus) Richelle	Not related to economy, because....
0	External relations	Eneko Landaburu	Not related to economy.
0	Humanitarian Aid	Peter Zangl	Humanitarian Aid is much about funding and donors, hence connecting the DG to economy. Nevertheless, the character of the DG is external Aid, not the economic activity, although economic funding is the back bone of the DG. Therefore, the main characteristics of External Aid, places it as not economic in character, in contrast to the economic DGs of for example EcFin and Trade and Industry.
1	Trade	David O'Sullivan	Related to economy.
0	Communication	Claus H Sørensen	Not related to economy.
1	Europe anti-fraud office	Franz-H Brüner	Closely related to economic activity, thus coded economy.
1	Eurostat	Walter Radermacher	Although EuroStat is meant to cover all policy areas; it is first of all focused on economic statistics and structural indicators, thus closely related to the variable Economy. The economic content of the website makes it therefore categorized as related to economy.
0	Publications	Martine	Not primarily related to economy.

	office	Reicher	
0	Secreteriate general	Cathrine Day	Not primarily related to economy.
1	Budget	Luis R Requera	Related to economy.
0	Bureau of EU policy advisers	Vitor Gaspar	Not primarily related to economy.
0	Informatics	Fransisco G Morgan	Provides the European institutions with the Information and Communication Technology needed to help the institutions operate as efficiently as possible, thus not coded economy.
0	EU Comm. data protection officer	Peter Hustinx	Not related to economy.
0	Infrastr. logist - Brussels	Gabor Zupkó	Not related to economy.
0	Infrastr. logist – Luxembourg	Marian O` Leary	Not related to economy.
0	Internal audit service	Walter Deffaa	Internal Audit Services are mainly related to organization and management, and risks and assets control, although economic management is part of its work. The unit is therefore coded as not primarily related to economy.
0	Interpretation	Marco Benedetti	Not related to economy.
0	Legal service	Clarie-F Durand	Not related to economy.
1	Admin and payment of ind. Entitlements	Dominique Deshayes	Primarily related to economy.
0	Personnel and admin	Claude Chène	Not primarily related to economy.
0	Translation	Juhani Lönnroth	Not related to economy.

I. Appendix: DGs related to External Relations (Externality)

	Portfolio	DG	Comments
0	Agriculture and rural develop.	Jean-Luk Demarty	Not related to external relations.
0	Competition	Philip low	Not related to external relations.
0	EcFin	Marco Buti	Not related to external relations.
0	Education and Culture	Odile Quintin	Not related to external relations.
0	Employment, social affairs and equal opport.	Nikolaus van Der Pas	Not related to external relations.
0	Energy and transport	Matthias Ruete	Although both energy and transport does not know state borders, the primary focus is domestic energy supply and transport systems, and thus not primarily related to external relations.
0	Enterprise and industry	Heinz Zourek	Not related to external relations.
0	Environment	Jos Delbeke	Environment is a global matter , but the DG` s main focus is on domestic/internal activities
0	Executive agencies	-	Although some executive agencies can involve external relations, the primary activities, based on the information on the website, are of internal character, and therefore coded not related to external relations.
0	Maritime affairs and fisheries	Fokion Fotiadis	Maritime Affairs and Fisheries is coded not related to external relations, because of the primary focus on domestic activities at the expense of external cooperation on the website. This is not to say that external relation is invisible on the website, but the main focus is on developing a coherent and sustainable marine industry in the Union, hence coded not related to external relations.
0	Health and consumers	Robert Madelin	Not related to external relations.
0	Info society and media	Fabio Colasanti	Not related to external relations.
0	Internal market and services	Jörgen Holmquist	Not related to external relations.
0	Joint research centre	Roland Schenkel	Not primarily related to external relations.
0	Justice, freedom and security	Jonathan Faull	Not related to external relations.

0	Regional policy	Dirk Ahner	Not related to external relations.
0	Research	Silva Rodríguez	Not related to external relations.
0	Taxation and customs union	Robert Verrue	Not related to external relations.
1	Development	Manservisi Stefano	Related to external relations.
1	Enlargement	Michael Leigh	Related to external development.
1	EuropeAid and external co-op office	Koos (Jacobus) Richelle	Related to external development.
1	External relations	Eneko Landaburu	Related to external development.
1	Humanitarian Aid	Peter Zangl	Related to external development.
1	Trade	David O`Sullivan	Related to external development.
0	Communication	Claus H Sørensen	Not related to external relations.
0	Europe anti- fraud office	Franz-H Brüner	Not related to external relations.
0	Eurostat	Walter Radermacher	Not related to external relations.
0	Publications office	Martine Reicher	Not primarily related to external relations.
0	Secreteriate general	Cathrine Day	Not primarily related to external relations.
0	Budget	Luis R Requera	Not related to external relations.
0	Bureau of EU policy advisers	Vitor Gaspar	Not primarily related to external relations.
0	Informatics	Fransisco G Morgan	Not related to external relations.
0	EU Comm. data protection officer	Peter Hustinx	Not related to external relations.
0	Infrastr. logist - Brussels	Gabor Zupkó	Not related to external relations.

0	Infrastr. logist – Luxembourg	Marian O` Leary	Not related to external relations.
0	Internal audit service	Walter Deffaa	Not related to external relations.
0	Interpretation	Marco Benedetti	Not related to external relations.
0	Legal service	Clarie-F Durand	Not related to external relations.
0	Admin and payment of ind. Entitlements	Dominique Deshayes	Not related to external relations.
0	Personnel and admin	Claude Chène	Not related to external relations.
0	Translation	Juhani Lönnroth	Not related to external relations.

J. Appendix: DGs related to World Language

	Portfolio	DG	Comments
1	Agriculture and rural develop.	Jean-Luk Demarty	French, coded world language.
1	Competition	Philip low	English, coded world language.
0	EcFin	Marco Buti	Italian, coded world language.
1	Education and Culture	Odile Quintin	French, coded world language.
1	Employment, social affairs and equal opportunities	Nikolaus van Der Pas	German, coded world language.
1	Energy and transport	Matthias Ruete	
1	Enterprise and industry	Heinz Zourek	German, coded world language.
1	Environment	Jos Delbeke	French and Dutch, coded world language based on the strength of French.
-	Executive agencies	-	-
0	Maritime affairs and fisheries	Fokion Fotiadis	Greek, not coded world language.
1	Health and consumers	Robert Madelin	English, coded world language.
0	Info society and media	Fabio Colasanti	Italian, not coded world language.
0	Internal market and services	Jörgen Holmquist	Swedish, not coded world language.
1	Joint research centre	Roland Schenkel	German, coded world language.
1	Justice, freedom and security	Jonathan Faull	English, coded world language.
1	Regional policy	Dirk Ahner	German, coded world language.
0	Research	Silva Rodriguez	Spanish, not coded world language.
1	Taxation and customs union	Robert Verrue	French, coded world language.
0	Development	Manservisi	Italian, not coded world language.

		Stefano	
1	Enlargement	Michael Leigh	English, coded world language.
0	EuropeAid and external co-op office	Koos (Jacobus) Richelle	Dutch, not coded world language
0	External relations	Eneko Landaburu	Spanish, not coded world language.
1	Humanitarian Aid	Peter Zangl	German, coded world language.
1	Trade	David O`Sullivan	English and Gaelic, coded world language based on the strength of English.
0	Communication	Claus H Sørensen	Denmark, not coded world language.
1	Europe anti-fraud office	Franz-H Brüner	German, coded world language.
1	Eurostat	Walter Radermacher	German, coded world language.
1	Publications office	Martine Reicher	French, German, coded world language.
1	Secreteriate general	Cathrine Day	English and Gaelic, coded English based on the strength of English.
0	Budget	Luis Romero Requera	Spanish, not coded world language.
0	Bureau of EU policy advisers	Vitor Gaspar	Portuguese, not coded world language.
0	Informatics	Fransisco G Morgán	Spanish, not coded world language.
0	EU Comm. data protection officer	Peter Hustinx	Dutch, not coded world language.
0	Infrastr. logist - Brussels	Gabor Zupkó	Hungarian, not coded world language.
1	Infrastr. logist – Luxembourg	Marian O` Leary	English and Gaelic, coded world language based on the strength of English.
1	Internal audit service	Walter Deffaa	German, coded world language.
0	Interpretation	Marco Benedetti	Italian, not coded world language.

1	Legal service	Clarie-F Durand	French, coded world language.
1	Admin and payment of ind. Entitlements	Dominique Deshayes	French, coded world language.
1	Personnel and admin	Claude Chène	French, coded world language.
0	Translation	Juhani Lönnroth	Swedish, coded world language.