

SOCIAL CONFORMITY AND PSYCHOLOGICAL DIFFERENTIATION^{1,2}

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This study examined the role of socialization experiences in the development of psychological differentiation. In each of three countries (Holland, Italy, Mexico) two villages were selected as presenting a contrasting picture with regard to degree of emphasis on conformity to family, religious and political authority. It was hypothesized that within the pair of villages in each country children from the village which stressed social conformity would tend to be more field dependent and show other signs of less developed differentiation than children from the village in which social conformity was less emphasized. In each of the six villages approximately 100 children (boys and girls, aged 9-11 and 13-15) were

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² Because of space limitations, only a brief summary description is given in this paper of the six villages studied and of the selection procedures followed to insure that the subject groups used would be representative of the total populations from which they were drawn. Extended accounts of the villages and of the subject selection procedures are given in a full report of this study, which may be obtained by writing to : Herman A. Witkin, Division of Psychological Studies, Educational Testing Service, Princeton, New Jersey 08540, U.S.A.

studied. Differentiation was assessed by a battery of tests of field-dependence-independence and the figure-drawing test. In every comparison of mean test scores between pairs of villages, in each of the three countries, children from the village in which social conformity was stressed obtained scores reflecting less differentiated functioning. Village differences were significant for every measure of differentiation in all three countries. Additional analyses of the data from the tests of differentiation and other tests used yielded results essentially consistent with findings from previous studies.

INTRODUCTION

The field-dependence-independence cognitive style, and the broader dimension of psychological differentiation of which it is a component, have been explored in a number of cross-cultural studies over the past decade. These studies were conducted with a variety of theoretical objectives and carried out in a wide range of cultural settings. The volume of work done reflects the fruitfulness of a cognitive-style approach to cross-cultural research; it reflects as well the value of cross-cultural studies for an enriched understanding of cognitive development.

As discussed elsewhere (Witkin, 1967), to the extent that individual differences in cognitive style are largely the end-products of differences in socialization experiences (see, for example, Witkin, Dyk, Faterston, Goodenough and Karp, 1962; Dyk and Witkin, 1965; Dyk, 1969), an individual's cognitive style may be used to infer the nature of his socialization experiences while growing up. This makes cognitive style a useful weapon in the comparative study of socialization processes across cultures. The commonplaceness of the perceptual function at the heart of the field-dependence-independence dimension (disembedding part of an organized field from the field as a whole) makes this cognitive style a particularly valuable indicator of socialization effects. Further enhancing its status as an indicator are certain features of the techniques used in determining an individual's standing on this dimension. Field-dependence-independence may be assessed by controlled, objective procedures. Further, to the extent that past personal history affects performance on these tests they are of course not "culture free"; at the same time they can be made "culture fair": that is, the task involved may be made meaningful to persons from widely different cultural settings and the effect of level of verbal development and verbal facility on test outcome is minimal. In addition, these tests, or suitable adaptations of them, can be and have been used within our own society with persons at widely different mental levels and with persons who are special in their sensory makeup: young children (Karp and Konstadt, 1971; Coates, 1972); geriatric groups (Comalli, 1965; Karp, 1967; Schwartz and Karp, 1967); retarded children (Witkin, Faterston, Goodenough and Birnbaum, 1966); the blind (Witkin, Birnbaum, Lomonaco, Lehr and Herman, 1968; Witkin, Oltman, Chase and Friedman, 1971) and the deaf (Fiebert, 1967); and, of course, they have been used in their original or adapted form in a variety of cultural settings. All these features of the field-dependence-independence dimension and of the ways of assessing it make this cognitive style a most useful tool in cross-cultural inquiry.

Applications of the cognitive-style approach to cross-cultural research have had two broad objectives. One has been to establish the generality of this cognitive style beyond the Western setting in which it was first observed and studied. The

second has been to identify the socialization variables associated with the achievement of a relatively field-dependent or field-independent style, or more broadly, with a relatively less developed or more developed level of differentiation.

Studies concerned with the generality of the field-dependence-independence dimension have examined the various characteristics of this style, identified in the original American studies (Witkin, Lewis, Hertzman, Machover, Meissner and Wapner, 1954; Witkin *et al.*, 1962). Among these characteristics are : the sheer fact of individual differences; self-consistency in performance across perceptual tasks which feature disembedding, at issue in field-dependence-independence; the association of field independence, taken as an indicator of more developed differentiation in the perceptual sphere, with indicators of more developed differentiation in other psychological domains, as, for example, an articulated body concept and a developed sense of separate identity as reflected in more autonomous functioning; the tendency, beginning in adolescence, for males to be significantly more field independent than females; and, finally, developmental change toward greater field independence and greater psychological differentiation during the growth years. The weight of the evidence from cross-cultural studies amassed to date suggests, by and large, that the field-dependence-independence phenomenon, as defined by these characteristics, is to be found in many cultures and is thus not narrowly Western.³ (See, for example : Baran, 1970; Berry, 1966, 1971, 1972; Dawson, 1967a, 1967b; Fernandez, Diaz-Guerrero and Tapia, 1966; Goodnow, personal communication; Hovey, 1971; Kato, 1965; MacArthur, 1967, 1969, 1971, 1972; MacKinnon, personal communication; Mebane and Johnson, 1970; Okonji, 1969; Pande, 1970; Rand, 1971; Siann, 1972; Vernon, 1965; Weller and Sharan, 1971; Wober, 1966.)

Illustrative of research done under the aegis of the second approach, concerned with identifying relevant socialization variables, are, first of all, studies of the relation between child-rearing practices and field-dependence-independence. These investigations typically based themselves on the original American observation (for example, Seder, 1957; Witkin *et al.*, 1962; Dyk and Witkin, 1965; Dyk, 1969) that encouragement of autonomous functioning as an emphasis in child rearing is associated with the development of a more field-independent cognitive style and greater differentiation; and that, on the other hand, field dependence and limited differentiation tend to be associated with demand for adherence to parental authority. The strategy followed by both Berry (1966) and Dawson (1967a, 1967b) in pursuing these ideas was to compare modal cognitive style of two relatively small social groups (in Dawson's case the Temne and Mende of Sierra Leone, Africa, and in Berry's case the Temne and the Eskimo of Baffin Island), each pair selected as strikingly different in strictness of exercise of parental authority. Similarly designed studies, testing the same general hypothesis but using contrasting subcultures within a given country, were done in the United States by Dershowitz (1971); in Israel by Amir, Sharan, and Preale (1970), Preale, Amir, and Sharan (1970), and Zadik (1968); and in France by Rand (1971). The results of these studies, taken together, suggest that the child-rearing prac-

³ Some exceptions to the expected trends — as the absence of sex differences among the Eskimo (Berry, 1966; MacArthur, 1967, 1969) — are noteworthy in the added light they shed on the development of field-dependence-independence.

tices associated with the development of a more field-dependent or field-independent cognitive style tend to be similar across cultural settings.

Another line of cross-cultural work directed at identifying the sources of individual differences in cognitive style has also considered child-rearing practices, but in interplay with ecology and social structure. A conceptual basis for using such a broad context has been presented by Berry (1971), Dawson (1969) and Witkin (1967). A number of studies conducted under the influence of this conception have shown that subsistence-level, mobile hunting and fishing groups, living in perceptually homogeneous environments, tend to be field independent; in contrast, sedentary agricultural groups, living in perceptually variegated environments, tend to be field dependent. Such a difference in modal cognitive style was observed by Berry (1966) in his comparison of the Eskimo, hunters whose surround consists for the most part of extensive uniform snow fields, and the Temne, agriculturists. It was also found by Dawson (1969, 1971) who compared two Chinese groups in Hong Kong: the Boat People, whose lives as fishermen make the uniformly homogeneous sea their main habitat, and the agricultural Hakka. It was found as well by MacArthur (1972) in his comparison of the hunter Canadian Eskimo and the agricultural Nsenga Africans of Zambia. Still further evidence comes from the observation that the aboriginal Arunta of Australia, hunters whose habitat is the desert, again a relatively homogeneous surround, also tend to be field independent (Berry, 1971; Dawson, 1971). It is not difficult to see how, for these mobile hunting and fishing groups, the character of their environments and the nature of their engagement with these environments, required for survival, make field independence highly adaptive.

Particularly impressive is the additional evidence from these same studies of an autonomy-fostering emphasis in child rearing in the hunting/fishing groups examined, an emphasis which previous studies have shown to favor the development of field independence and self-sufficiency, both indicators of more developed differentiation. Self-sufficiency, which was in fact documented by Berry for the Eskimo, may also be seen as having adaptive value for such groups. Further enlarging the picture is the suggestion from the study by Berry (1966) that the emphasis on autonomy in child rearing among mobile hunting and fishing groups is in turn associated with a mode of social organization (limited political and social stratification and lack of class distinction) which is highly congenial to such an emphasis. Viewing the results of these studies in evolutionary perspective, it seems reasonable to believe that, over the long haul of history, the demand on hunting and fishing groups of an ecology which requires moving about in a relatively homogeneous surround, and the pressure of a subsistence-level existence, fostered social structures and socialization practices favoring the development of the cognitive skills and personal qualities so helpful to survival in such settings. The ecological context in which agricultural groups evolved did not have these adaptive requirements, and in such groups we do not find the constellation of individual and social characteristics observed in hunting and fishing groups. On the other hand, the strong emphasis on adherence to family and social authority, observed in the agricultural groups examined in the studies cited, and known to be associated with the development of field dependence, may well have adaptive value in groups whose members live in close and constant proximity. A check has not yet been made on whether

the more developed social sensitivity frequently observed among field-dependent persons, a quality again likely to have adaptive value in close social living, is also a more prominent characteristic of members of agricultural than of hunting groups.

In several of the studies which used a cross-cultural approach to identify socialization variables contributing to the development of cognitive style, one of the dimensions implicated is "social traditionalism". While the evidence linking this domain to field-dependence-independence is still sketchy, it is sufficient to suggest that systematic research on this linkage would indeed be profitable in deepening our understanding of the origin of individual differences in cognitive style. Equally important, this evidence points up the particular attributes of "traditionalism" relevant to the development of field-dependence-independence.

Among the studies which carried "traditionalism" as a theme is that of Preale *et al.* (1970) which compared young Israeli adults of Middle-Eastern and Western ethnic origin. The Middle-Eastern family was characterized by Preale *et al.* as more tradition oriented, having "an authoritarian patriarchal structure which tends to foster subordination to authority and restriction of emotional autonomy" (p. 191). In addition, "child-rearing functions of socialization agents in the family of Middle-Eastern origin are more stereotyped and less differentiated than in the urban family of Western ethnic origin" (p. 194). The expectation that the Middle-Eastern group would be more field dependent than the Western group was supported. In view of what we know about the socialization influences contributing to a more field-dependent cognitive style, it is not surprising that traditionalism, as defined, should be associated with such a style⁴. The same kind of difference between Western and Middle-Eastern groups observed by Preale *et al.* has been found in another study, using adults (Amir, Sharan and Preale, 1970), and in two studies using children as subjects (Zadik, 1968; Weller and Sharan, 1971).

Another study in which traditionalism emerged as an important variable in the development of cognitive style is that of Dershowitz (1971) which compared New York City boys from strictly orthodox Jewish families, many of Eastern European origin, with boys from assimilated Jewish and white Protestant families. The first group was significantly more field dependent and gave other signs of less developed differentiation, when compared to the other two groups. Dershowitz used the label "traditional" to characterize the settings in which the orthodox boys grew up, and specified the particular attributes of family and religious practices subsumed under traditional as follows: The families are "observant", in the sense of adhering strongly to the many particulars of Jewish religious strictures. To indoctrinate them in these strictures, boys from these backgrounds devote a large portion of their time to religious training. Adherence to values and patterns of traditional living, characteristic of Jews of Eastern European heritage from which they originate, is strong. Also included among the characteristics of traditionalism were: Assignment of

⁴ In this same study, Preale *et al.* found that kibbutz-raised young adults were more field independent than non-kibbutz-raised young adults. This outcome was predicted on the premise, first, that the kibbutz community tends to encourage self-reliance in its socialization procedures and to disparage conformity, and, second, that "kibbutz children are raised by several socialization agents whose roles and relationships to the child are highly differentiated" (p. 194).

primary responsibility to the mother for the son's physical and emotional care, with this responsibility carried out in a dominating way, likely to inhibit the development of autonomous functioning in a boy, while the father is responsible for the son's spiritual and religious development; limitations on criticism of elders; stress upon conformity. Social traditionalism is reflected here in the strong influence of religion, which specifies a set of values and beliefs to be uniformly followed by all, and, again, a dominating role of parental authority to which conformity is expected.

In a study by Rand (1971), the concept of "traditionalism" was also invoked to characterize the social setting from which his Moroccan-origin Jewish children came. The Jewish Moroccan family was characterized by Rand as authoritative and patriarchal. Strict obedience to paternal authority is expected and the mother, with whom the child has a dependent relationship, is cast in a protective role. Corporal punishment is readily used as a form of discipline and initiative by the child is discouraged. Conformance to authority is also strongly emphasized in school and in religious practices. The expectation that children will adhere to attitudes emphasized by society encourages stereotypy in behaviour. Because of these emphases in their social experiences, Rand expected his children of Jewish Moroccan origin to be more field dependent than children in a matched group of Jewish children of European origin. A significant difference between the two groups in the expected direction was found when the embedded-figures test was used to assess differentiation, but not when the figure-drawing test was used, although for the latter test as well the difference was in the expected direction. It is interesting that within the group of Moroccan origin, length of residence in France was not related to extent of differentiation.

This evidence, taken together, suggests that a field-dependent cognitive style is likely to be predominant in social settings characterized by insistence upon adherence to family and social authority and the use of severe or even harsh socialization practices to enforce this conformance. The designation, "traditionalism", used in the studies just reviewed for social arrangements that have these attributes, presents the dilemma that this same designation is also used in another sense in the literature. In this alternative sense it refers to settings in which social arrangements of the group are being continued in their original form, in juxtaposition to settings in which the group is coming under Western influence (Berry, 1966, 1970; Dawson, 1967c). Societies that are traditional in the second sense of "continuing the old order" may be, but are not necessarily traditional in the first sense. The Eskimo in their rural habitat are an example of a society that is not. While traditional in the second sense, they are hardly traditional in the first sense, as we have seen.

Since what seems related to field dependence in the studies reviewed is traditionalism in the first sense only, we have chosen to designate this kind of traditionalism by a separate term — "social conformity" — to avoid confusion with traditionalism in the second sense. In fact, the dictionary definition of "conformity" fits particularly well the social arrangement we intend it to cover. Webster's New International Dictionary defines "conformity" as "action in accordance with rules, customs, etc.". In using the designation "social conformity" we intend it to cover conformity to family, religious and political authority; and,

in fact, empirically an emphasis on conformity to one kind of authority tends to go with an emphasis on conformity to the other kinds as well.

Conceived in this way it is reasonable that social conformity should influence development in the direction of field dependence and limited differentiation overall. An overriding, uniformly applied emphasis on adherence to a predetermined stereotyped set of external standards during growth is likely to work against the identification and development of an individual's unique abilities, interests and modes of coping. The result is interference with achievement of specialization of function in an individualized way which, as noted in a detailed discussion of the development of differentiation given elsewhere (Witkin *et al.*, 1962), is one of the salient attributes of a more differentiated psychological system. Similarly, continued enforced orientation toward external referents makes difficult achievement of a self experienced as having attributes of its own, distinct from the attributes of others. In consequence, the development of self-nonsel self separation, another salient feature of differentiation, is hampered.

We have taken up leads from the evidence and concepts just reviewed to devise a systematic study of the role of social conformity in the development of field-dependence-independence and psychological differentiation.

Several features of the study should be noted at the outset. First, we have examined groups in Western settings. Second, we selected for comparison two groups differing in extent of emphasis on conformity from within the same country, thus allowing the effects of this dimension to show themselves, while at the same time keeping the overall cultural context more or less constant. Third, since the comparisons made were between groups within a given country this was not a cross-national study. Fourth, we chose villages of each kind that were relatively small, in the thought that, first, this would make for greater homogeneity in social experiences than is likely to be found in larger cities, and, second, identification of study samples representative of particular total populations would be facilitated. Fifth, we repeated the study in three different countries (Holland, Italy, Mexico) as a way of checking on the generality of differences in the effects of greater or lesser social conformity. Finally, in selecting villages for study we considered extent of conformity to familial, religious and political authority.

METHOD

I. SELECTION OF VILLAGES

In the case of both Holland and Italy the tasks of selecting the two contrasting villages within each country, of working out practical arrangements for carrying out the study, and of administering the test battery used were the responsibility of the collaborating psychologists in each of these countries. The Mexican part of the study was under the direction of a collaborating psychologist who is a Mexican-American, rather than a Mexican national, and who is fluent in Spanish, with continuing family and professional ties in that country. In addition, Mexican nationals were employed as collaborators for data gathering. By these arrangements within each country, familiarity with the culture was guaranteed, practical arrangements facilitated and appropriate translation of test instructions insured.

The choice of villages was guided by the criteria of socialization and social arrangements subsumed under the concept of "social conformity", as defined.

A first step in village selection was to identify regions of each country in which the two kinds of villages being sought after were likely to be located. The specific selection of a particular

village, within a region, was based in most instances on close personal familiarity of one of the investigators with the particular village, and in the remaining cases was aided by advice of other colleagues whose professional activities brought them into contact with the village involved.

Thus, the villages chosen in Holland were the actual hometowns of two members of the group of Dutch investigators. In Italy, one of the villages was the hometown of the wife of the leader of the Italian group of investigators. As for the other Italian village a first decision was made in favor of the geographic area between Lombardia and Emilia as being typical of the northern Italian area where social conformity is not strongly emphasized. Following this, discussions were held with a school psychologist, familiar with villages in that area through her consultation and guidance work in their schools. Finally, in the case of Mexico, the collaborating psychologist was familiar with one of the villages through his own direct observations; this village was ten miles from his hometown and, since his grandparents were born there, he had visited there quite often. The choice of the second Mexican village was guided by the advice of staff members of the School of Public Health at the Autonomous University of Guadalajara, who were acquainted with the villages in the region through their work in placing medical students in the health clinics of these villages.

Though the choice of the villages was avowedly impressionistic, the selection was based in each case on a very considerable amount of information. The small size of each village of course made it easier to become familiar with it and to characterize it as an entity.

2. DESCRIPTIONS OF THE VILLAGES

For ease of reference we will use the designations "MC" (more conformity) and "LC" (less conformity) for the two contrasting villages on the conformity dimension in each country.

DUTCH VILLAGES

Village MC — Den Ham

Den Ham, which is mainly an agrarian community, has a population of about 4,500 and is situated in the province of Overijssel in the eastern part of Holland. Extended families, under grandparental control, commonplace in the past, are still often found today. The grandfather is usually responsible for administering the farm and the grandmother for raising the children and for many household chores, in part because of the need for everyone, including mother and children, to help with the farm. Despite their participation in the farm work children have little explicit interaction of an educational sort with their fathers while working. Children are expected to behave as the community expects and to be careful in interactions. In school, they are obedient, kind, quiet, and rarely rebellious. While beating is an acceptable type of punishment, it is seldom used because open conflict is so rare. People in Den Ham are very sensitive to authority. Apart from deference to the oldest generation, the authority of village notables and local leaders is strongly respected and their opinions have great influence. Old feudal structures have persisted until recently and traces of them can still be found. Religion is characterized by an unmistakable fatalism; authority is "given by God" and so is to be respected. Almost every inhabitant of the village is an active member of one of the three Protestant denominations. Altogether, while change is taking place, Den Ham is still marked by strong conformity and sensitivity to the rules governing life in a closed community.

Village LC — 's-Gravenzande

This village, with a population of about 11,600 people, is a rural municipality situated in the province of Zuid-Holland about 10 kilometers south of The Hague. Extended families are not found. Within the family, consisting of parents and unmarried children, the father makes decisions about purchases, investments and the like, while the mother is in charge of raising the children. In carrying out this responsibility the mother is self-assured and self-confident in setting norms and in handling the children. The father is generally too busy meeting the demands of his market gardening to participate actively in the upbringing of children, but he is not disinterested and in case of necessity is willing to participate in discussions and decisions. Children early begin to help out in the garden, and after some time even have a voice in the business affairs of their fathers. As a consequence of carrying such responsibilities children expect to be treated as grown-ups. In conflicts with parents they give their opinions freely.

Altogether children have more freedom and carry greater responsibility than in Den Ham. Punishment typically takes the form of restriction of privileges and beating is very seldom used. Most people in 's-Gravenzande are likely to belong to one of the less orthodox Protestant denominations. As compared to Den Ham, adherence to religious rules and observances is less strict and there is more free thinking about the literalness of the Bible. Village authorities occupy a less exalted position than in Den Ham. They are respected to the extent that they are competent and people feel free to criticize them.

MEXICAN VILLAGES

Village MC — Ahualulco

This village of approximately 9,500 inhabitants is situated in the state of Jalisco, 45 miles west of Guadalajara. Its residents are very much identified with the value system of rural Mexico, described by Oscar Lewis (1961). Insularity and traditional life are extant in Ahualulco. It is not uncommon for grandparents to live in the household with the nuclear family. In general the father is the authority figure in the family with the mother responsible for child rearing. At a very early age children help the father in the fields or at his work. Girls have to live up to very strict and demanding role requirements and are guarded a good deal by fathers and older brothers from adolescence to the day they are married. Boys are given more freedom. The Ahualulcans are very much identified with the conservative Roman Catholic philosophy. The laws of the church are strictly observed and the priest is one of the most important figures in the community. In religious attitudes, and in political attitudes as well, passivity and a sense of powerlessness are pervasive.

Village LC — Ciudad Mier, Tamaulipas

This village has a population of about 7,000 and is located in northern Mexico, nine miles from the United States border. Most men work in the United States and return home for the weekend. The family is mainly nuclear in structure. Because fathers tend to be away so much mothers have considerable responsibility for raising children. In carrying out this responsibility mothers emphasize independence and tend to be lenient. Boys are given more freedom than girls, but compared to Ahualulco girls have fewer restrictions placed on them. Again compared with Ahualulco, mothers and children have more extensive contacts with strangers outside the home, a consequence of both the father's temporary absence and the proximity of the United States where they visit. This has the effect of reducing cloistering of women and children and of altering the traditional female role of subservience and passivity. Priests have much less influence than in Ahualulco and people in positions of responsibility are less fearful of making decisions without first consulting local and federal officials.

ITALIAN VILLAGES

Village MC — Cerreto

Cerreto Sannita is a very old village with a population of about 6,000, situated in the central part of the northernmost region of the south, almost at the border of Campania. Child-rearing practices follow the traditional Latin model. The presence of grandparents who seldom give up their decision-making powers, which they exercise in an authoritarian fashion, is an important feature of the family. The father is the acknowledged authority, to be honored and respected, and not much concerned with the care of his children. The mother's care of the child tends to vary between indulgence and coercion and physical punishment is not uncommon. The child is expected to follow blindly what adults require. Boys and girls are kept apart and sexual taboos for adolescents are so strict that until a few years ago girls invited social criticism if they walked in the street with boys, other than in a collective group. The inhabitants of Cerreto place heavy stress on what others may think or say. Passivity, resignation and submission to authority are outstanding characteristics of the villagers. Priests and doctors stand high in the occupational hierarchy.

Village LC — Ostiglia

This village of about 8,500 inhabitants is situated in northern Italy, between two typical northern subcultural areas, Lombardia and Emilia. As in Cerreto the initiative in the family is in the hands of the mother who looks after the children. Here, however, the father participates in child rearing decidedly more than in Cerreto. In dealing with her children the mother is likely

to be self-assured. In general parents encourage independence in their children; from an early age many children have interests outside the home and their own responsibilities. Socialization is less severe than in Ostiglia. Physical punishment is rare and mild and sex taboos far less strict. Already at the elementary and junior high school level boys and girls tend to engage in amatory activities in the woods surrounding the village, a practice which parents and teachers know about but pretend does not exist. The church has less authority than in Cerreto. The local church is very frequently attended by women but little by men, who, if religious, may go to Sunday mass sporadically.

In summary, the three more conforming villages and the three less conforming villages present a rather striking contrast in family, social, political and religious organization and function; and the many specific ways in which the two kinds of villages are different in these domains give strong justification to the view that they differ in extent of social conformity as we have defined it.

As a first impression, the MC villages tend to be more insular than the LC ones. In all three MC villages there is an extended family structure, with authoritative roles exercised by grandparents. On the other hand, the extended family structure is not evident in two of the three LC villages; and in the third LC village (Mier) it is less pronounced than in its MC counterpart (Ahuatlulco). In the MC-village families the father is to be respected by his children but has little to do with raising them. In contrast, the father is more connected with child rearing in the LC villages, even though in some cases the father's work keeps him away from home a good deal. In the MC villages, mothers tend to play a more dominating role with their children and physical punishment is more commonly used. A greater premium is also placed on obedience to parental authority in these villages, and sexual taboos for adolescents, especially girls, are more pronounced.

Looking outside the family, authority figures in the social, religious and political domains are far more influential in the MC than in the LC villages. Conformance to the prescriptions of authorities, and discouragement of any questioning of these prescriptions, are much more typical of the MC villages. All told, the impact of family and social arrangements and practices on socialization is to discourage individuality to a far greater extent among children growing up in the MC villages. In the MC villages, children's behavior patterns and attitudes are strongly fostered from "without", and in highly uniform fashion at that. Correspondingly, there is less tolerance of behavior patterns and attitudes guided in their formation from "within", thereby diminishing the contribution of the child's unique capabilities and resources to the final developmental outcome. The result is to reduce "degrees of freedom" in development available to the growing child and to diminish variety in outcomes among children.

It is mainly on these grounds that we expected children growing up under the socialization influences of the MC type of village would, on the whole, give evidence of less developed psychological differentiation.

3. METHOD OF SELECTION OF SUBJECTS

It was planned to study in each village two age groups (approximately 10 years and 13 years) of boys and girls, with 25 subjects in each age-sex group, making a total of 100 children per village or 600 children in the three countries taken together. Adaptations had to be allowed in these criteria in order to accommodate to local village conditions (such as number of children available in a given age-sex group), but the same selection criteria were used in the two villages of each country. Particular effort was made to insure that the sample selected in each age-sex group was truly representative of that age-sex group as a whole in the village. This requirement, though difficult to meet, is important in cross-group comparisons; selection biases can easily contribute to group differences and so confound results.

Holland: All children selected had lived in their respective villages all their lives and had one parent born in the village or its vicinity. They all came from intact Protestant families and all were of normal physical and mental status. For the sake of uniformity in religious background, only children from the Dutch Reformed elementary schools were selected for the younger group. For the older group, who by then were attending numerous higher-level schools, only those who had attended Dutch Reformed elementary schools were considered. Selection of eligible

children was made on a random basis, with parental consent denied in only two instances in 's-Gravenzande and one in Den Ham.

Mexico : In view of the importance of Catholic ideology in Mexican culture, and because the majority of the population in each of the villages was Catholic, it was decided to select subjects from Catholic parochial schools in Ahualulco, and in Mier, which had only public schools, to select Catholic subjects alone. In addition, only children who had grown up in the village and whose families had lived there for at least three generations were considered. Subjects were selected on a random basis. No parental refusals were encountered in either village. While the entire range of socioeconomic status was represented in each village, the MC Ahualulco group had a somewhat heavier representation of middle- and upper-class children than did the LC Mier group. In the younger Ahualulco group, some lower-class families could not afford the tuition charged by the parochial schools from which Ahualulco children were selected. Older children from low er-class Ahualulco families had often already dropped out of school to help their fathers, a phenomenon which did not exist in Mier because so many fathers worked in the United States and the issue of children helping them did not arise. Whatever differences did exist in socio-economic class could only work against our hypothesis, however, since the evidence suggests that children of higher socioeconomic status may show more differentiated performance on some of the tests used in this study (Witkin, Oltman, Raskin and Karp, 1971).

Italy : The younger groups were chosen on an essentially random basis from the elementary school populations in each of the villages. Since school attendance at that age level is compulsory in Italy, the school population was identical with the total village population of that age. The older LC group in Ostiglia was similarly representative, since there was only one school in the village and children continued in school through the age level of our older group. However, in Cerreto the older MC group had an underrepresentation of children from poor families, since some children had already left school to work and others had gone to a local trade school to prepare them for jobs. Again, as in the case of the Mexican sample, if socioeconomic status is at all related to performance on tests of differentiation, the absence of lower-income children from our older MC Cerreto sample would work against the hypothesis that children from that village would be less differentiated.

4. THE TEST BATTERY

A maximum battery was agreed upon for use in all countries, again with the understanding that modifications would be made as practical problems in a local situation demanded.

Extent of psychological differentiation was assessed in the perceptual domain through tests of field-dependence-independence and in the body-concept domain through figure-drawing productions. The tests of field dependence included the rod-and-frame test, using the portable apparatus developed by Oltman (1968) (PRFT); the children's embedded-figures test (CEFT) for the younger children and the regular embedded-figures test (EFT) for the older children, or if deemed more appropriate in a given instance, the CEFT for the older group as well; the Block Design subtest (BD) of the Wechsler which has been found to load the same factor as our tests of field dependence (Goodenough and Karp, 1961; Karp, 1963) and may be considered an effective test of field dependence. The Block Design subtest of the WISC was used for both younger and older children, except that in Italy the WAIS Block Design subtest was used for the older group. All these tests were scored in the same standard fashion across cultures. For the rod-and-frame test, the subject's score is the mean number of degrees deviation of the rod from the true upright on the eight trials given. In the EFT the score is the mean time taken to find the simple figure in the complex design in the twelve trials of the test; in the CEFT the score is the number of correct identifications of the sought-after simple figure in the complex design containing it, out of a possible total of 25.

To obtain the figure drawings for assessment of articulation of body concept the subject was asked to make drawings of a male and a female. To these drawings the articulation-of-body-concept scale (ABC) was applied. As described in detail elsewhere (Witkin *et al.*, 1962; Faterson and Witkin, 1970) this is a 5-point scale, with a single score assigned for both drawings; a higher score reflects a more articulated representation of the human body in the figure drawings. Since with scales of this kind score assignment may be affected by the population of drawings being assessed, it was felt that village differences would have a better opportunity to show themselves,

if present, through combining the drawings from all countries and scoring them together, rather than by scoring the drawings for each country separately.

Finally, the decision was made to include a verbal test in the battery. The test used for both age groups was the Vocabulary subtest of the WISC. Past studies have shown only a low relation between verbal ability, of the kind represented by vocabulary-test performance, and field-dependence-independence, indicating that the two dimensions are more or less distinct. A low relation between measures of these two dimensions in the present study would diminish the possibility that we might be dealing with the effects of socialization upon a "g" type of overall cognitive competence.

5. HYPOTHESES

The hypothesis this study was particularly designed to test was that, within each of the three countries studied, children from the village relatively strong in social conformity, as reflected in socialization emphases in both the family and society, would tend to be less differentiated on the average than children from the village showing less emphasis on conformity.

Several auxiliary hypotheses, suggested by evidence from past studies, were also amenable to examination in the data obtained :

1. We expected measures from tests of differentiation to be interrelated, reflecting in these groups the same stylistic tendencies observed in past studies.

2. We expected the older children in each village to give evidence of more developed differentiation than the younger children. Age-related changes in psychological differentiation, particularly pronounced during the age span covered in this study, have repeatedly been observed in past investigations. (See, for example, Witkin *et al.*, 1954; Witkin *et al.*, 1962; Witkin, Goodenough and Karp, 1967.)

3. We had no definite expectation of sex differences in measures of differentiation. In past studies sex differences in field dependence have been quite consistently significant from late adolescence onward (Witkin *et al.*, 1954; Witkin *et al.*, 1962), although tending to disappear in old age (Karp, 1967; Schwartz and Karp, 1967). Within the age range of the subjects in the present study significant sex differences in field dependence have not been found with any consistency (see, for example, Witkin *et al.*, 1954; Witkin, Goodenough and Karp, 1967; Witkin, Oltman, Raskin and Karp, 1971). In the second of these studies a significant sex difference was found when the data for subjects studied longitudinally in the 10- to 24-year-age period were considered overall. However, when means for each age group were taken separately, significant sex differences were not found at the younger ages, which are the same as those involved in the present study.

4. We expected vocabulary test scores to be less highly related to measures of psychological differentiation when compared to intercorrelations among the measures of differentiation themselves. We had no grounds for predictions about village differences in vocabulary-test performance. On the basis of relations observed in past studies, we expected older children to score more highly on the vocabulary test than younger children and boys to score higher than girls (see Garai and Scheinfeld, 1968).

RESULTS

The hypothesis that LC-village children would be relatively more differentiated than MC-village children was strongly supported. In all, 36 comparisons⁵ were made between the MC and LC villages in the three countries on the various measures of differentiation. Inspection of the means shown in Table 1 reveals that, in every instance, without exception, the mean for the LC village reflects greater differentiation than the mean for the MC village to which it was compared. Thus, children — boys and girls, older and younger — from the LC village performed in a relatively more field-independent fashion on the PRFT, CEFT and

⁵ Since countries varied in tests used, complete $2 \times 2 \times 2$ analyses (village \times age \times sex) were not possible for every test in all three countries.

TABLE 1
TEST MEANS

		Females					Males				
YOUNGER CHILDREN											
		PRFT	CEFT	BD	ABC	VOC	PRFT	CEFT	BD	ABC	VOC
Village		<i>Holland</i>									
LC		—	16.1	27.4	2.2	24.9	—	17.4	26.6	1.7	28.5
MC		—	14.0	18.4	1.7	22.0	—	14.6	20.5	1.3	25.1
		<i>Italy</i>									
LC		7.9	14.8	20.2	3.6	39.3	8.0	16.4	26.6	2.7	41.7
MC		19.0 ^c	8.1 ^c	9.8 ^e	1.7 ^c	21.2 ^f	18.5	10.2	12.0 ^d	1.8 ^c	27.3
		<i>Mexico</i>									
LC		11.3	19.1	20.9	2.6	36.8	7.5	18.8	17.6	1.7	30.8
MC		16.7	12.2	—	1.5	—	12.4	14.7	—	1.5	—
OLDER CHILDREN											
<i>Holland</i>											
LC		—	21.0 ^c	35.7 ^c	3.1 ^c	36.0 ^c	—	21.5 ^c	43.7 ^c	2.8 ^c	41.5 ^c
MC		—	20.0	30.9	2.4	34.4	—	18.0	30.0	2.1	35.5
<i>Italy</i>											
LC		7.3	20.0	20.2 ^a	4.6	52.4	4.6	19.9	22.4 ^a	3.9	52.0
MC		11.1 ^f	19.1	—	3.5	—	9.0	19.1	—	2.6 ^g	—
<i>Mexico</i>											
LC		6.4 ^c	1030 ^b	32.5	3.8	49.7	2.6	662 ^b	39.1	3.7	50.7
MC		11.1	16.9	—	2.7	—	5.4	21.8	—	3.0	—

Note. — For the Portable Rod-and-Frame Test (PRFT) and Embedded-Figures Test (EFT), low scores indicate greater differentiation. For the Children's Embedded-Figures Test (CEFT), the Wechsler Block Design subtest (BD) and the Articulation-of-Body-Concept scale (ABC), high scores indicate greater differentiation. For the Wechsler Vocabulary subtest (VOC), higher scores indicate greater word knowledge.

N = 25 in each subgroup, except where indicated.

^aThese groups given Wechsler-Bellevue subtests. All others took the WISC subtests.

^bEFT was given these groups instead of CEFT.

^cN = 24

^dN = 23

^eN = 22

^fN = 21

^gN = 20

BD, and their figure drawings showed more articulated representation of the human body. Analyses of variance performed on these data show that in each country the village difference main effect was significant. Overall, the evidence in support of the village-difference hypothesis is indeed impressive.

The analyses of variance also show some significant interaction effects. In Italy, a significant village-age interaction was found for both the PRFT and CEFT, indicating a stronger village effect for the younger children. In Italy there was also a significant village x age x sex interaction for the ABC, apparently due to the presence of a sex difference in each group, except the younger MC-village children, where no sex difference appeared. In Mexico, a significant village x sex interaction was found, suggesting that the village differences were larger for girls than for boys.

Our second hypothesis, that the same stylistic tendencies observed in numerous past studies would be evident as well in the groups used here, was also confirmed. This hypothesis led us to expect that within each age-sex group scores for PRFT, CEFT, EFT, BD and ABC, all considered to reflect extent of differentiation, would tend to be significantly interrelated. Correspondingly, these scores were expected to relate at a lower level to vocabulary-test scores, which reflect an ability that is not part of the differentiation dimension. Of the intercorrelations among differentiation measures, 57 % were significant. On the other hand, of the correlations between differentiation measures and vocabulary-test scores, only 24 % were significant. Thus, for the subjects in this study the existence of a "style", represented by the differentiation dimension, is supported both by the picture of self-consistency within the differentiation domain and by the relative distinctness of this dimension from the verbal dimension, considered to be separate from it.

The hypothesis that, as in past studies, older children would give evidence of greater differentiation than younger children, is also strongly supported by the data. Table 1 shows that in 37 of the 38 comparisons made between younger and older age groups, the scores for the older children reflected a higher level of differentiation. The analyses of variance showed a significant age effect in each country.

As noted previously, in Italy there was also a significant age x village interaction for both the PRFT and CEFT. Such an interaction effect was also evident in Mexico for Block Design.

As has been usual for preadolescent samples, sex differences were not consistently found in our groups. This may be seen in Table 1 by comparing the mean scores for boys and girls, and it was evident in the outcome of the tests of significance of sex differences. Although some tests in some countries showed significant sex differences, the overall picture does not indicate a clear trend. Some interaction effects with sex were also evident.

We turn finally to differences in vocabulary-test performance between villages, age groups and sex groups. With regard to village differences, it will be recalled that we had no grounds for making any predictions. As for what the results themselves show on this issue, because the vocabulary test was not administered in a number of cases, the available data are limited. Where village comparisons were possible (older and younger children in Holland and younger children in

Italy), vocabulary-test scores were significantly higher for LC-village children than MC-village children.

Age effects for vocabulary could be tested for all children in Holland, and in the LC villages in Italy and Mexico. As was expected, in each case the older age group had significantly higher vocabulary scores than the younger group to which it was compared. Sex differences in vocabulary could be examined for the total group in Holland, for all the younger and the LC-village older groups in Italy and for the LC groups in Mexico. Only in Holland was the sex difference significant, being higher for males as expected. In Mexico, a significant age x sex interaction occurred, suggesting that the sex difference favored females in the younger group and males in the older group,

DISCUSSION

The major hypothesis examined in this study was that children from social settings showing less emphasis on conformity would tend to be more field independent and show other signs of more developed differentiation than children from settings emphasizing conformity. We have been careful to restrict our use of the term "conformity" to settings in which the growing child is exposed to strong demands for adherence to social conventions, both in the home and in society. In the comparison made of children from pairs of villages selected as showing more conformity and less conformity in each of three countries, children from the village with less conformity, without exception, scored significantly higher on the tests used to assess extent of differentiation. The finding that similar village-differences were obtained in all three countries studied lends confidence to the conclusion that social settings emphasizing conformity are less likely to encourage the development of psychological differentiation in children than settings which stress conformity.

This conclusion has received further confirmation from a recently completed study conducted in a third village in Italy, Grammichele. This village, located in the province of Catania in Sicily, was selected as emphasizing conformity. The study in Grammichele followed the design used in all our other villages. The expectation that, on measures of differentiation, children of this village would resemble those of Cerreto, the MC village of the pair of Italian villages used in our main study, was generally confirmed. Also confirmed was the companion expectation that Grammichele children would tend to be less differentiated than children from Ostiglia, the LC village of the original Italian pair of villages.

It should again be strongly emphasized that our study was designed solely to compare children between villages in any one country. It was not designed for cross-national comparisons. A study having such an objective would, of course, require identification of samples representative of each of the countries being compared. This we did not do, nor did we consider it appropriate to do, out of a feeling that when dealing with large, complex societies, of the kind represented by the countries we studied, an effort to identify "national character types" is not a very profitable or even sensible enterprise. In fact, our study had an opposite objective to studies concerned with the identification of national character types. That objective was to demonstrate variety among groups living within

the same country, as a function of variety in socialization practices within that country. In any case, the way in which we obtained our data allows no inference as to whether children from one of the countries we studied rank higher or lower on a given variable than children from either of the other countries.

A special word needs to be said about sex differences in ABC ratings. In keeping with results of a number of studies by now, a significant tendency was found for females in both Holland and Italy (although not in Mexico) to receive higher ratings than males. This sex difference is in a direction opposite to that consistently found for tests of field-dependence-independence, on which it is males who achieve scores reflecting greater differentiation. At the same time, the present study and numerous other studies have shown the expected significant relations between ABC ratings and measures of field-dependence-independence within each sex. As observed elsewhere (Faterson and Witkin, 1970) the "reversal" in sex differences for ABC ratings is very likely a function of the nature of the ABC scale itself. It was noted there that this scale, as now formulated, takes account not only of characteristics of the body itself, but also of features of clothing, hair treatment and adornments (as jewelry). An emphasis on such features is far more typical of figures (especially female figures) drawn by girls than by boys. On the basis of such inherent and inescapable differences in emphasis on what is in effect the social appearance of the figures they draw, females may be expected to earn higher ABC ratings than males. At the same time, within each sex, individual differences in ABC ratings do reflect differences in articulation of body concept and hence in level of differentiation.

Finally, with regard to village differences in vocabulary-test scores, because the vocabulary test was not administered to a number of groups, only six village comparisons were possible (older and younger children in Holland and younger children in Italy). In the six vocabulary-test-score comparisons that were made, children from the LC village scored higher than children from the MC village. In other words, there appears to be a tendency for villages which "produce" more differentiated children also to "produce" children higher in vocabulary ability.

In the Italian comparison, the vocabulary difference found may be an artifact. Whereas both the LC and MC villages in Italy use a special dialect, the dialect is far more specialized in the MC village. The regular Wechsler Vocabulary subtest was thus very likely less appropriate for MC-village children. Their lower vocabulary scores may well be a consequence of test inappropriateness.

This possible basis of the Italian vocabulary finding further diminishes the evidence linking level of differentiation in a village to level of vocabulary ability. Even if this linkage is "real," however, the fact that measures of differentiation show only a low relation to vocabulary scores would suggest that if socialization affects achievement in these domains, different kinds of socialization are probably involved in each. Results of some of our earlier studies provide empirical support for this view (Witkin *et al.*, 1962; Dyk and Witkin, 1965). In these studies data obtained from interviews with mothers were used to rate their child-rearing practices as "differentiation fostering" or "differentiation inhibiting". These ratings of mothers correlated very highly ($r = .65, p < .01$) with their sons' composite scores for a battery of tests of field-dependence-independence. These same ratings of mothers showed no relation ($r = .15$, nonsignificant), however, to their

sons' verbal-comprehension scores, based on a composite of scores for the WISC Vocabulary, Information and Comprehension subtests, all of which have been shown to load a common factor (Cohen, 1957, 1959; Goodenough and Karp, 1961; Karp, 1963). While we did not, in that study, examine the child-rearing practices associated with verbal achievement, the results obtained make it reasonable to conclude that these practices are very likely different from those we found to be associated with the development of differentiation.

These observations, taken together, suggest that if the parallel between village differences in differentiation and village differences in vocabulary ability is a real one — a case which at the moment cannot be considered proven — this parallel is best explained by assuming that different socialization practices are relevant to the development of differentiation and of verbal ability, but that the practices fostering the development of each tend to "go together" in any given social setting.

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RÉSUMÉ

Cette étude porte sur le rôle des expériences de socialisation dans le développement de la différenciation psychologique. Dans trois pays (Hollande, Italie, Mexique), on a choisi deux villages contrastés du point de vue de l'importance accordée à la conformité à l'autorité familiale, religieuse et politique. Selon l'hypothèse, dans chaque pays, les enfants du village prônant la conformité sociale manifesteront une plus grande dépendance du champ et d'autres indices de différenciation moins avancée que les enfants du village où la conformité sociale est moins accentuée. Une centaine d'enfants (garçons et filles, âgés de 9 à 11 et de 13 à 15 ans) furent ainsi étudiés dans chacun des six villages. On évalua la différenciation au moyen d'une batterie de tests de la dépendance-indépendance du champ et d'un test de dessin de personnages. Les comparaisons des résultats moyens dans chaque paire de villages et dans chacun des trois pays corroborent l'hypothèse : les enfants du village à conformité sociale accentuée obtiennent des résultats reflétant une différenciation psychologique moindre. Les écarts entre villages s'avèrent significatifs pour chaque mesure de différenciation dans chacun des trois pays. Des analyses supplémentaires des données fournies par les tests de différenciation et autres épreuves font apparaître des résultats généralement conformes aux conclusions de précédentes recherches.