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INFLUENCES OF CULTURAL PATTERNS ON THE THINKING OF CHILDREN
IN CERTAIN ETHNIC GROUPS

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A Study of the Effect of Jewish Sub-Culture on the
Field-Dependence-Independence Dimension of Cognition

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requirements for the degree of Doctor of
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TO
A.R.G.

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In the maturation of any idea, and the development of any thought, numerous influences interact with one another. Often, those influences which are most cogent, become completely integrated with the individual's personality structure so as to be virtually unrecognizable. Thus it may happen, that lesser influences are recognized and acknowledged while more significant influences go unacknowledged.

The recognition of this fact, however, doesn't free me of the obligation to express gratitude to those without whose help this project would have gone undone.

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CHAPTER I
INTRODUCTION

Recognizing as we do the uniqueness and individuality of human behavior and personality, it is evident, nonetheless, that certain consistencies exist. These may be considered as existing on three levels: those shared by all human beings, those shared by the individuals within any particular sub-grouping of human beings, and those existing within the ego functioning of each specific human being. This study will be concerned with aspects of the last two of these consistencies, i.e., those shared by the members of ethnic groups, and those self-consistencies which exist within the ego functioning of individuals.

With regard to this last-mentioned self-consistency, this paper is part of the orderly development of research along the lines initially reported by Allport and Vernon in 1933 which led to the generalization that:

The expressive features of the body are not independently activated. Any one of them is affected in much the same way as any other. . . . There are major consistencies and secondary consistencies, much congruence and some conflict and contradiction.¹

Many additional aspects of self-consistency have been

1. As reported by Gordon W. Allport, Personality: A Psychological Interpretation, pp. 480-481.

explored, including such things as the effect of set, figure and ground, closure, concept formation, and other similar determinants of perception and cognition. Thus there exists, now, an ever growing body of literature relevant to the consistencies described as cognitive styles or controls. Some writers prefer to speak of control principles, implying psychological control over behavior, while other writers, implying less, refer to styles only. This paper will not concern itself with this controversy, but will prefer the use of the term "style." This study will be concerned, primarily, with one aspect of these styles, the one identified as field-dependence, or psychological differentiation.

A second concern of this paper will be the consistencies that exist beyond and outside of separate individuals, and pertain rather to characteristics common to all individuals within particular groups. Margaret Mead identifies these characteristics as cultural consistencies and writes of them as follows:

It is important to recognize that cultural character or the form of learned behavior embodied in the character structure of an individual which is found to be held in common by all members of a given culture is not a set of uniformities, but a set of regularities which may in fact appear to be extremely diverse or contradictory, but which nevertheless will be found upon examination to be systematically related to each other.²

2. Margaret Mead in Psychology of Personality,
J.L. McCary (ed.), p. 215.

For the purposes of this study, we need not, however, travel to the South Seas or to some other exotic primitive culture to discover characteristics common to the behavior of groups of people. Even in such a cosmopolitan center as New York City, teachers of the elementary and high schools who, daily, face a polygenetic group of students, find ready evidence of cultural characteristics manifest in the respective ethnic groups. This study, then, will additionally concern itself with some of those consistencies involving ethnic groups and cultural characteristics.

Thus, the concern of this paper will be with integrating some insights regarding individual consistencies with insights regarding group consistencies, with an eye towards demonstrating a consistent relationship between ethnic group identification and individual cognitive style.

The demonstration of such a relationship would suggest a bonding of personality and culture at the level of "formal" rather than "content" manifestations of personality, and would indeed seem to involve the process rather than the pattern of behavioral manifestations. In contradiction, seemingly, to the position stated by Ralph Linton:

It is significant that cultural processes, and indeed culture as a whole, seem to have little effect upon the processes involved in the development and operation of the personality. The personality processes derive from the qualities which are inherent in the human organism. They represent the individual's psychological potentialities in action. Culture, through the

experience which the individual derives from his contact with it, determines part of the materials with which the personality processes operate.³

In this respect, then, the present study may help to alter the focus of those whose concern is the interaction of culture and personality.

3. The Cultural Background of Personality, p. 121.

CHAPTER II

COGNITIVE STYLE

The concept of systematic organization of experience in accord with individually consistent cognitive styles has been of growing concern to psychologists, sociologists, educators, and others concerned with human behavior.

Setting aside the effect of motives and drives, researchers have demonstrated that people differ systematically in their approach to reality and in the manner with which they integrate experience.

Kagan and his colleagues,¹ for example, have identified the preference of some people for analytic conceptualizations, i.e., characteristically, analyzing and differentiating the stimulus field, applying labels to subelements of the whole, while other people tend to categorize a relatively undifferentiated stimulus.

Holzman and Klein,² as another example, have spoken of a modality identified as leveling-sharpening, with the leveller being described as one who exhibits a low level of

1. J.S. Wright and J. Kagan (eds.), "Basic Cognitive Processes in Children," Society for Research in Child Development 28 (1963), Monograph 86.

2. P.S. Holzman and G.S. Klein, "Cognitive System-- Principles of Leveling-Sharpning," Journal of Psychology 37 (1954), pp. 105-122.

articulation in a sequence of stimuli, whereas the sharpener, under identical circumstances, demonstrates a high level of articulation.

A comprehensive examination of these and other modalities is fully reported upon by Riley Gardner, et al.³ Their study covers such "styles" as focusing-scanning, constricted-flexible, equivalence range, tolerance for unrealistic experiences and field dependence-independence. In a generalized way, the authors describe such organized and ordered individual consistencies as follows:

If we think of response as coerced not by stimulus alone, or by motives alone, but also by the organizational dispositions of the responding system, then universal as well as varying responses can be accounted for within a conception of organismic controls. The concept of cognitive control is offered as one means of ordering person's variations in responses to both environmental stimuli and drives.⁴

A factor analysis performed on Gardner's results produced factors which differed for men and women. The identifiable factors for men were interpreted as corresponding to the control principles of scanning and tolerance for unrealistic experience, while two of the unidentified factors resembled aspects of field-dependence.

In the test results for women, on the other hand, three factors were identified and interpreted--as corresponding to the control principles of field-dependence,

3. "Cognitive Control," Psychological Issues 10 (1959), No. 4.

4. Ibid., p. 37.

leveling, and equivalence range.

Among the most extensively studied of these control principles, or "styles", as he prefers to speak of them, has been Herman Witkin's field-dependence-independence. The stability of this measure, and the consistency of the clustering of tasks, has led to Witkin's postulation of the "differentiation hypothesis".

There is a great deal of evidence that individuals whose perception is field-dependent--i.e., for whom the overall organization of the prevailing field is dominant, and who experience parts of the field as fused with the background--also do less well in certain intellectual activities involving the isolation of essential elements from within a particular context and recombining them into new relationships. Similarly, field-dependence-independence seems to be related to such things as articulation of the body-concept, preferred defense mechanisms, and the effects of social influences. The weight of evidence points to sex and age differences.

Of significance is the fact that Witkin's research has led to the contention that the mother-child relationship has an influence upon the development of the style of differentiation among children.

Mothers judged on the basis of the interview [one of several techniques employed] to have fostered the development of differentiation in their children and mothers giving evidence of a developed body concept tended to have children who show articulateness of experience of the field, a developed body concept, a sense of

separate identity, and structured defenses and controls. Mothers judged as having inhibited their children's progress toward differentiation and mothers with a poorly developed body concept were apt to have children who gave evidence of limited differentiation in these various areas.⁵

As will be portrayed in detail later in this paper, traditional Jewish homes, by this judgment, must be considered as inhibiting the development of independence--specifically, at least, in sensory, body areas! Consequently, as a rule, such homes should fall into the category of "interaction-inhibiting" homes, in contrast with Anglo-Saxon Protestant homes, which, it will be demonstrated, should, as a rule, fall into the category of "interaction-fostering" homes. Consequently, it would be a reasonable expectation that Jewish children should be found to behave with relatively more field-dependence than their Anglo-Saxon Protestant neighbors.

Field-Dependence and Verbal Skills

The relationship between analytical functioning and verbal skills is unresolved in the Witkin work. Some verbal skills, moreover, seem to bear little relationship to analytical functioning. To help resolve this matter, a number of researchers are currently involved in an attempt to simulate verbal tasks of analytical functioning by creating tests utilizing verbal materials in an embedding

5. Herman Witkin, et al., Psychological Differentiation, p. 366.

context. Rosen⁶ has reported a moderate correlation between his Verbal Concept Attainment Test and the Embedded Figures Test. Messick, in unpublished work at the Educational Testing Service at Princeton, has, similarly, been experimenting with various measures designed to test verbal disembedding. At the present time, all of these measures seem overly weighted with factors attributable to the verbal competencies usually associated with tests like vocabulary and general information.

The challenge present in the creation of a suitable measure, therefore, is two-fold: one, to create a test duplicating the essential experiences present in the Body Adjustment and Embedded Figures Tests, and two, to keep this test relatively independent of the effects of verbal competency.

A job analysis of the two perceptual tests seems to suggest the following: the subject is presented simultaneously with sensations which lend themselves to global as well as conflicting analytical perception, and the resolution of this conflict requires the subject to extract, or disembed, something from a familiar frame of global context.

The author of this study, in consultation with Drs. Witkin and Messick, has prepared a Test of Verbal

6. Harold Rosen, "Recall As A Function of Differentiation and Hostility." Undated abstract from the Center for Study of Cognitive Processes.

Disembedding which appears to conform with the job analysis stated above, and which, as part of this study, was evaluated for relative freedom from the effects of verbal competency. (As can be seen from Table XIV on page 133, this test failed also to achieve freedom from the effects of verbal competence. The correlations, however, remain significant even after partialing out the verbal factors.)

Field Dependence and Intelligence

Generally, intelligence tests are reported to correlate well with the analytical functioning involved in the field-dependence-independence tasks. Witkin acknowledges these correlations, but maintains the position that the correlations result, in large measure, from the effects of specific sub-items involving analytical functioning. In response to a highly critical review, Witkin postulates:

. . . the ability to separate item from context expresses itself in intellectual activities as well, carried primarily by subtests of standard intelligence tests featuring this ability.⁷

The review had questioned the notion that measures of analytical functioning can be classed under the construct "differentiation"--in view of the fact that verbal competencies are not included in the field-dependency constellation. Zigler, the reviewer, further questions the independence of Witkin's dimension, and asks whether, "many of the scores employed by Witkin are due to the common relationship

7. Witkin, et al., "On Zigler et al.," Contemporary Psychology 8: No. 9, p. 363 (Sept. 1963).

between all of these scores and general intelligence as defined by standard intelligence tests?"

Witkin's response in the September '63 issue of the same journal, justifies his position and refers a pointed answer to the stated criticism:

We considered two alternative hypotheses:
 (a) the relation with total IQ is a function of general intelligence . . . (b) the ability to separate item from context expresses itself in intellectual activities . . . and the relation with total IQ is carried primarily by subtests . . . featuring this ability.
 . . . The perceptual tests did not appear on either of the other two factors [forcing]
 . . . rejection of the "general intelligence" hypothesis.

In fragmenting the intelligence tests, Witkin has proposed the multi-dimensional nature of intellectual activity. It seems cogent to question whether field-dependence is not similarly multi-dimensional. Whether, in fact, the cluster of tasks found to be related to each other under the "differentiation hypothesis," might not be unique for a particular group of American children?

This research suggests that perhaps some of these relationships, and most certainly the pattern of strengths and weaknesses, are culturally rather than psychologically bound, evidencing the effect of attitudes, ideals, behavioral expectancies, adjustments and child-rearing practices!

In any event, through this study, a further attempt will be made to find the correlations, if any, of the perceptual measures and the subtests of the Wechsler

Intelligence Scale for Children. If, as predicted by Witkin, significant correlations appear only in the subtests of perceptual organization, or barring that, remain, at least, significant after partialing out the effect of general intelligence, this study will be additional confirmation of Witkin's notion. Zigler further contends that Witkin's conclusions are at variance with Piaget's findings because, as he puts it:

This equation of differentiation and decontextualization leads Witkin to the completely untenable conclusion that a variety of verbal behaviors are at best only minimally related to developmental processes. Such a conclusion runs headlong into the impressive work of Werner and Piaget.⁸

The successful construction of a verbal test of disembedding may help elucidate this dilemma.

Cognitive Style and Culture

This study will attempt to show a consistent relationship between sociocultural primacy and cognitive behavior.

While the concern will primarily be with field dependence-independence, similar probing seems in order with regard to other of the cognitive styles, lending themselves to interpretation in accord with cultural expectations and manifestations.

Very few studies have been reported dealing with such relationships though it is obvious that:

8. Edward Zigler, "Psychological Differentiation Reviewed," Contemporary Psychology 8: No. 4, pp. 133-135, April 1963.

Between the natural environment and the individual there is always interposed a human environment which is vastly more significant. This human environment consists of an organized group of other individuals, that is, a society, and of a particular way of life which is characteristic of this group, that is, a culture. It is the individual's interaction with these which is responsible for the formulation of most of his behavior patterns, even his deep-seated emotional responses.⁹

Riley Gardner has been among the leaders of research in the area of cognitive style, and it is only appropriate, then, that one of the first studies of the relationship between cognitive style and culture comes from his laboratory. In a study of level of abstraction and conceptual differentiation, it is reported that the first intercultural study

involved limited samples of children from Mexico and the United States and served as a testing-ground for procedures to be included in a larger and more systematic study of concept formulation in children of various socio-economic levels in two cultures.¹⁰

The results, while ambiguous in some respects, were clear in demonstrating that Mexican children give fewer abstract conceptual definitions than do their American counterparts--while the reverse is true with regard to concrete definitions. Secondly, the study demonstrated

9. Ralph Linton, The Cultural Background of Personality, p. 11.

10. S.J. Mercado, et al., "Cognitive Control in Children of Mexico and the United States," Journal of Social Psychology 59 (1963), pp. 199-208.

that in contrast with Americans, Mexican boys differ from girls with regard to their preferred level of abstraction.

A second study reported upon in a paper read before the Edinburgh University Psychology Society¹¹ described a study involving a three-hour battery of perceptual tests given to two cultural groups with greatly divergent characteristics. The selected culture groups were the Temne of Sierra Leone and the Eskimo of Baffin Island. Scots were also given the same tests.

Predicated upon differences in orientation towards independence and cooperation, and differences in language, art and socialization processes, it was hypothesized that the Eskimo would be more aware of small detail than the Temne. The perusal of the results of the sample groups on Witkin's Embedded Figures test as well as on the other perceptual tests which were administered, confirmed the hypothesis that culture may affect the style with which people experience their world.

These two studies, then, and the original study on the Temne, that preceded them, having explored the relationship between grossly different cultures and cognitive style, leave to this study the investigation of children living in the same general geographic area, sharing the same middle-class American culture, but differing only with

11. John W. Berry, "Preliminary Report of a Study of Temne and Eskimo Visual Perception," Nov. 9, 1965 (mimeographed).

regard to their sub-cultural affiliation. The present study proposes that even under such conditions, cultural ideals, behavioral expectancies, values, attitudes, and child-rearing practices will play a role in the determination of children's preferred style of cognition.

CHAPTER III
SOME CULTURAL DETERMINANTS OF BEHAVIOR

Recent writers in the fields of social psychology and personality development have cited what they consider to be evidence of the influence of cultural factors in the shaping of social character and in the etiology of personality failure. While one may agree with the assumption that there are, indeed, underlying psychological preconditioning, and processes in the development of cultural phenomena, it is evident that there exists for and within most societies a unique "ideal type" of person. This person, in any given society, will likely differ substantially from his counterpart in another society.

There is no doubt but that the ideal person in a Kwakiutl village, for example, is much different from his counterpart in an Eskimo settlement. For, as Margaret Mead points out, "The Kwakiutl were grossly competitive . . . and the Eskimo and Ojibwa grossly individualistic societies."¹

But it isn't necessary to look at primitive tribes to

1. Margaret Mead (ed.), Cooperation and Competition Among Primitive People, p. 459.

see such differences. The Asian Indian ideal, for example, is much different from the Prussian German ideal.

It is important to recognize, however, the limitations involved in describing "cultural character" in terms of an "ideal" type of person.

Within the regularities of the cultural character, in a statement about any given version, the systematically related types of behavior which are distinctive of classes, ages, and occupations may be found implicitly or explicitly represented: "girls sit like this, not like boys"; or in a society with changing manners, "girls sit like this now, just like boys";²

Thus, in discussing the American gum-chewing complex, Margaret Mead continues:

The gum-chewing complex includes the knowledge that such behavior is not ideal, and this very knowledge contributes to the relaxation, the permitted slouch, the covert disposal, and many other subsidiary aspects of the gum-chewing habit.³

In summation then,

Cultural character statements . . . if made correctly, should be statements about every single American although any given individual may illustrate the particular statement by reacting negatively or positively, extensively or slightly, in the area being covered.⁴

The effect, then, of these differences in cultural

2. Margaret Mead in J.L. McCary, Psychology of Personality, p. 219.

3. Loc. cit.

4. Loc. cit.

characteristics is evident in abnormal as well as normal behavior.

Karl Menninger, in his foreword to Culture and Mental Disorders clearly enunciates the importance of cultural values when he states that those psychodynamic approaches which

claim that culture and social relationships are dynamic (or causal) factors in producing socially deviant or mentally disordered individuals, are supported by evidence from a number of scientific disciplines.⁵

Furthermore, he asks:

How many of our suicidal fears, individual and collective, and our illnesses can be ascribed to the group ideals and group attitudes and group living techniques that we have developed? Does our culture support us or does it bear so heavily upon some of us that they break under it, renouncing us all, our culture and our concept of reality.⁶

David McClelland writes of the psychological importance of the language and reading experiences of children in different societies, when he states:

Since so many of the individuals' values come in an already organized form from the culture [i.e., from the language and literature], it is important for the personality psychologist to study the themes or values in the culture in which the individual lives, because this is one of the best ways to get an idea of how the person organizes his experience. He does not, of course, reflect his culture perfectly, but he may reflect it to a greater

5. Joseph W. Eaton and Robert J. Weil, Culture and Mental Disorders, p. 20.

6. Ibid., p. 11.

extent even than he can consciously report, so that it becomes doubly important for the psychologist to know the themes in the culture from which he comes.⁷

Erik Erikson sums up the effect of culture upon personality, when he writes:

Man's "inborn instincts" are drive fragments to be assembled, given meaning, and organized during a prolonged childhood by methods of child training and schooling which vary from culture to culture and are determined by tradition. . . . [Man] learns to exist in time and space as he learns to be an organism in the space-time of his culture.⁸

Looked upon from a slightly different vantage point, in addition to the effects of striving towards the ideal of the society, the elementary association of an individual with the group to which he gives allegiance and with which he identified himself will have an important effect upon his characteristic feelings and modes of behavior. Thus, group identification, as a primary social situation, is identified by Kurt Lewin as "one of the most important constituents of the ground on which the individual stands."⁹

In fact, the unifying theme of Lewin's thinking is identified by Gordon Allport as

-
7. J.L. McCary (ed.), Psychology of Personality, p. 342.
 8. Childhood and Society, p. 95.
 9. Resolving Social Conflicts--Selected Papers on Group Dynamics, p. 145.

The group to which an individual belongs is the ground for his perceptions, his feelings, and his actions.¹⁰

In one of the rare instances of traditional psychological research among primitive tribes, Wayne Dennis reports on a study conducted by C.G. Seligman using the Muller-Lyer illusion. Even in such seemingly pure perceptual situations

The staff of the Torres Straits expedition in 1898 found that certain native groups were much less subject to the illusion than were European subjects.¹¹

Gardner Murphy similarly finds perceptual structuring important in the development of the "psychocultural entity."

We owe here a great deal to Sherif, who has reminded us of the tremendous power the social group possesses to define the anchorage points and the modes of articulation of perceptual totals, so that we can come close to see things as others do. In growing up, one's way of experiencing the world becomes crystallized just as is one's pattern of motor response. One may naively say, "I will lean over backwards, put away my biases, and see things dispassionately and objectively." But we have a very limited conscious understanding of the social standardization of perception; we cannot, by an act of will discover and make allowance for such perceptual habits; they are centered in our own make-up as personalities.¹²

10. Ibid., p. VIII.

11. Perception An Approach to Personality, Robert R. Blake and Glenn V. Ramsey (eds.), p. 151.

12. S. Stanfeld Sargent (ed.), Culture and Personality, p. 18.

Adding further to the significance of perceptual structuring, we note Kurt Koffka and the Gestaltists, who have presented evidence that, "Things look as they do because of the field organization to which the proximal stimulus distribution gives rise." Formulated simply, Koffka concludes that the actual state of affairs is such that:

. . . we see, not stimuli--a phrase often used--but on account of, because of stimuli.¹³

In this regard, it is interesting to note that such basic perceptual experiences as color identification are subject to cultural influences, witness the fact that green and yellow, so obviously different colors to Americans, are identified by one name in Hebrew, and are so perceived by members of that culture. The Navaho Indian, on the other hand, applies the same word for the color of a robin's egg and the color of grass.¹⁴ It is a well-known fact, too, that Eskimos perceive and identify many gradations of white, all of which are grouped as one and are so perceived by American and European societies.

Persistence of Culture

The persistence of the value-attitudes of childhood does not appear to be maintained by outside influence. Members of cultures in transition, and those, even,

13. Clyde Kluckhohn, Mirror For Man, p. 25.

14. Loc. cit.

consciously identifying themselves with a new culture cannot, it seems, eliminate the effect of their tradition.

A study of the Objibwa Indians led to the conclusion that

the persisting characteristics of Objibwa personality do not appear to be maintained by the influence of parental care. A possible answer is, that Objibwa experiencing acculturation . . . would have a concept of self derived from within, rather than from extensive social communication.¹⁵

A similar conclusion is reached by Ralph Linton, when he writes:

It is even more evident in the case of those who, having begun life in one culture are attempting to adjust to another. These are the "marginal men" whose plight is recognized by all who have worked with the phenomenon of acculturation. Lacking the reinforcement derived from constant expression in overt behavior, the early established value-attitude systems of such individuals are weakened and overlaid. At the same time, it seems that they are rarely if ever eliminated, still less replaced by new systems congruous with the cultural milieu in which the individual has to operate. The acculturated individual can learn to act and even to think in terms of his new society's culture, but he cannot learn to feel in these terms.¹⁶

In view, then, of the strength of the early learnings, it is not surprising to find the persistence of these "feelings" into a second or third generation. A child, it must be remembered, is sensitive far beyond

15. Stephen T. Boggs, "Culture Change and the Personality of Ojibwa Children," American Anthropologist 60 (Feb. 1958), No. 1, pp. 47-58.

16. The Cultural Background of Personality, p. 145.

his years, to the unexpressed feelings of the primary group.

The Researcher and His Culture

A vital, and yet often ignored effect of variation in cultural experience, is the personality structure brought to a test situation by the tester himself, Dennis writes:

In seeing Rorschach responses as indicators of personality, the proponents of the Rorschach believe that their interpretations are based upon experience. We know that "experience" of this type is a poor proof of validity. Mesmer's views, concerning animal magnetism were based on experience, the users of the dowsing rod can point to hundreds of successful applications of their method, and Watson was completely sincere in believing that he had seen three, and only three, infant emotions.¹⁷

Margaret Lowenfeld, in discussing the evaluation of designs on the Lowenfeld Mosaic Test, observes:

. . . the spontaneous evaluation by an anthropologist of the qualities of any response will inevitably mirror the scale of values implicit in the culture from which he comes. For example, the tester who would himself make an Am-type Design may tend to regard Compact or closed designs as limited or even indicative of depression, whereas in the same case, a tester who would himself make a Eu-type Design would more probably tend to regard the same response as showing an increase in the integration of personality or in cognitive ability.¹⁸

Another researcher has asserted:

17. Wayne Dennis, "Cultural and Developmental Factors in Perception," Perception--An Approach to Personality, Robert R. Blake and Glenn V. Ramsey (eds.), p. 157.

18. The Lowenfeld Mosaic Test, p. 44.

Little heed has been paid to the fact that . . . differences may be due to experiential and cultural artifacts which have no bearing upon pathology. Furthermore, what may appear to be an index of pathology in one context, may actually be a sign of strength in another. In the writer's experience, this is particularly true in the case of an individual who is the product of a deviant subculture and who comes in or is referred for diagnostic study.¹⁹

For Jewish subculture, in this regard, there seems to be particular importance in the psychological interpretations given to figure drawings as an expression of self-concept. I am indebted here to Martin Rothman²⁰ who first alerted me to the fact that Jewish children are atypical in their performance of this task. This study will extend our understanding of figure drawings in that it will help the psychologist evaluate factors other than those dependent upon differences in psychodynamics and psychopathology.

Thus in conclusion:

Since so many of the individual's values come in an already organized form from the culture, it is important for the personality psychologist to study the themes or values in the culture in which the individual lives, because this is one of the best ways to get an idea of how the person organizes his experience. He does not, of course, reflect his culture perfectly, but he may reflect it to a greater extent even than he can consciously report, so that it becomes doubly important for the

19. Boris M. Levinson, "Cultural Pressure and WAIS Scatter in a Traditional Jewish Setting," Journal of Genetic Psychology 93 (1958), p. 278.

20. Staff Psychologist of the Jewish Chronic Diseases Hospital.

psychologist to know the themes in the culture from which he comes.²¹

Subculture and Personality

In the United States we have, to quote the colloquial expression, a virtual "melting pot" of different cultures. Nonetheless, studies done among isolated ethnic societies, have tended to establish the fact that subcultures are often as fully distinguishable from the major culture as major cultures are distinguishable one from the other, for:

Subcultures are distinguished not by one or two isolated traits--they constitute relatively cohesive cultural systems. They are worlds within the world of our national culture.²²

Florence Kluckhohn in her substantial work on value orientations, has amply demonstrated variations from the dominant American pattern. She writes:

The many ethnic groups in the United States . . . have patterns of behavior and thought which vary more or less widely from the dominant American patterns. The "Melting pot" ideology is based upon a recognition of such variation. But it has not been equally well recognized, either ideologically or behaviorally, that the several groups often vary tremendously one from another.²³

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21. David C. McClelland, in J.L. McCary (ed.), Psychology of Personality, p. 342.
22. S.S. Sargent and M.W. Smith (eds.), Culture and Personality, p. 143.
23. Florence R. Kluckhohn and Fred L. Strodtbeck, Variations in Value Orientations, p. 25.

"There is no such thing as the environment of the American child," write Witmer and Kotinsky, as they continue:

We all know that, broadly speaking, a Southerner has a pattern of family relationships, an attitude toward a settled existence, toward the land, toward the stranger, toward efficiency that is different from the patterns of a person from the North or the Midwest. Again the functioning farm provides a different background of experience from that of the suburb or the city street. Within the city, there is difference occasioned by the income bracket, there is the pattern that is affected by the occupation of the father. Miners and sanitation workers and college instructors have approximately the same income but, as a rule, they provide different designs of living for their children.²⁴

As an example of these different designs, note the goals of middle-class child training:

Middleclass child training is characterized by a tense insistence of parents on fast and early attainment of middleclass values of cleanliness, respect for property, sexual control, control of physical aggression, a sense of responsibility and a drive for achievement. The methods used to train the child instill in him "a deep anxiety that (he) will be a failure, or will not be loved if he does not learn early and well the cultural goals of middleclass life." He is made to feel constant attacks of prolonged guilt.²⁵

Extensive research among the Negro population of the United States too, has tended to confirm the thesis that the basic personality of this group is different from that

24. Helen L. Witmer and Ruth Kotinsky, Personality in the Making, p. 165.

25. Sargent, op. cit., pp. 148-149.

of the population of white Americans. This difference, however, has generally been attributed to the way of life and class and caste position, forced upon the Negro in the United States,²⁶ and has, in fact, tended to disappear when the sampling is divided along socio-economic rather than racial lines.

Despite the broad categories indicated above, however, it would indeed seem that while occupation, socio-economic status, and ethnic minority status are, "significant determinants of personality within the broader American culture pattern,"²⁷ for groups of people living in heterogeneous cities in the North Eastern United States, the dominant factors in personality status would tend to fall along socio-economic lines. Perhaps for this reason, there is a tendency to speak of middle-class white Americans as "typical" Americans, and their culture as general American culture. It is this tendency, likely, which has led at least one writer to speak of the American middle-class as the "core-culture" of America.²⁸

Recognizing, however, the veracity of the contention that

26. See, for example, A. Davis and J. Dollard, Children of Bondage, and C.S. Johnson, Growing Up in the Black Belt.

27. Sargent, op. cit., p. 155.

28. Charles McArthur, "Personality Differences Between Middle and Upper Classes," J. of Abnormal and Soc. Psychology 50 (Mar. 1955), pp. 247-254.

The middle class . . . suffers from lack of cultural unity or tends to split up into unified subcultural groups on an ethnic or religious basis . . . Even when there is no family conflict, the culture transmitted by each family must be recognized as tending to have a dual aspect--partly middle class and partly ethnic-religious.²⁹

An attempt will be made in the following chapter to analyze some of the value differences between two American ethnic-religious groups--the Jewish and white Anglo-Saxon communities.

While no attempt has been made to determine whether, in fact, these postulated differences are extant in the homes of the children used in this study, the suggestion of the findings is that home and community influences are a significant factor in the development of the pattern of responses identified as field-dependence-independence.

29. Ruth N. Cavan, The American Family, p. 152.

CHAPTER IV
ASPECTS OF THE CULTURAL HERITAGE
OF THE TRADITIONAL JEW

The capacity of the Jewish People to maintain their traditions and preserve their past, in the face of the differing standards of the people about them, is well known and attested to by the facts of history. Jewish people who have clung to the traditions of their fathers have the "experience of having lived in a world which included always at least two cultures, that of the Jews and that of the particular nation among whom they lived."¹

In this study the focus will be on the culture of the Eastern-European Jews, who, "although they lived in several different national states [may be spoken of as one culture], because they related themselves to each other in an Eastern European Jewry, which was felt by them to be a society, although not a state."² The values and patterns that will be described are characteristic of "the Shtetl--the Jewish community in the small town or village of Eastern Europe," but they are essentially true for

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1. Margaret Mead, in Mark Zborowski and Elizabeth Herzog, Life Is With People, p. 12.
 2. Margaret Mead, in J.L. McCary (ed.), Psychology of Personality, p. 20.

traditional Jews in our own community; for, while the Jews of New York City may be geographically far removed from Eastern Europe, Shtetl "effects and . . . traces are . . . perceptible among Jews in Western Europe and in the United States."³

It is interesting, in this context, to note the reaction of a group of researchers:

It came as a surprise to all of the researchers to realize the seemingly considerable perseverance of traditional European modes in American surroundings, even in the third generation, despite some evidence of important changes or, at least, of shifts of emphasis. Shtetl Jews themselves expect perseverance, and in orthodox religious circles decry any of the changes in family life.⁴

As one variation from the dominant pattern of values, it seems noteworthy to examine socio-economic factors, seemingly so cogent in the formation of the American child's personality. The effects of the usual socio-economic considerations seem less important in the traditional Jewish home. As one writer surmises:

. . . apparently, in the Jewish traditional homes studied, the important factors determining to a great extent the child's personality and intellectual traits, are not dependent on socio-economic factors.⁵

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3. Margaret Mead and Martha Wolfenstein (eds.), Childhood in Contemporary Cultures, p. 119.
 4. Ruth Landes and Mark Zborowski, "Hypotheses Concerning the Eastern European Jewish Family," Psychiatry 13: No. 4, pp. 447-464.
 5. Boris M. Levinson, "A Comparative Study of the Verbal and Performance Ability, etc.," The Journal of Genetic Psychology, 97 (1960), p. 100.

A similar conclusion is reached by another researcher. In his study of a traditional Jewish community in Brooklyn-- primarily of Eastern European origin--Kranzler reports on the diminution of the apparent importance of economic factors as a prime mover for this group.

From the description of the changes that took place in the Jewish community of Williamsburg since its origin, it is obvious that according to the normal pattern of development it should have fallen apart as a residential area at the end of the 1930's. . . . Instead of an increasing surrender to disintegration, like the adjoining areas, the residential pattern of Williamsburg expanded back into once-abandoned sections, as more and more new elements, disregarding economic and ecological considerations for the sake of the spiritual atmosphere of the Jewish community move in.⁶

The author will attempt to substantiate the contention that in several areas, in addition to the socio-economic area already cited, there exists among traditional Jews consistent deviation from the dominant American pattern of values, attitudes, cultural expectations, adjustments and child-rearing practices. This discussion will be directed, primarily, at showing that Jewish children raised and schooled in traditional Jewish neighborhoods and schools may be expected to be different from Episcopalian or Presbyterian children raised under conditions of equivalent socio-economic status. As indicated to this writer by Margaret Mead, this group of Protestant

6. George Kranzler, Williamsburg - A Jewish Community in Transition, p. 43.

children may most justifiably be considered the "typical" white middle-class American children.

The following discussion of patterns of deviation will be directed, primarily, at the following major areas: (1) the dichotomy of body and mind, (2) interpersonal relationships, and (3) Jewish adjustment.

The Dichotomy of Body and Mind

While undoubtedly affected by the material world surrounding it, the primary stress of Jewish culture is upon the spiritual and intellectual values of life as contrasted with the material and physical!

Looking first at Jewish literature, it will be noted in the writings of the medieval philosopher, Rabbenu Bachaya, among many others (whose works, incidentally, are still valued today as a guide to daily living), that he instructs the pious and would-be pious person to:

. . . examine his soul with regard to the days gone by. Has he occupied himself during those days in the worship of G-d, or in the service of his inclination?

He [the pious one] should reckon with his soul over how imbedded within it is the love of this [material] world. How strong is the lust for the desirables [of this world] over the love of the [spiritual] world to come.⁸

7. Rabbenu Bachaya, The Duties of the Heart-Chovas HaLevavos (12th Century), Introspection, Chapter 11 (free translation).

8. Rabbenu Bachaya, ibid., Chapter 25 (free translation).

This same writer, in his introduction to a chapter on asceticism, states simply and categorically, "Retirement from the customary things of life [asceticism] is one of the [desirable] things towards which introspection should lead."

Similarly, the revered jurist and philosopher, Maimonides, summarizes in a succinct manner, the relative values of intellectual study and the very physical existence itself:

As a man is commanded to give honor and respect to his father, so must he give honor and respect to his teacher, and more so! His father has brought him life in this world, but his teacher has taught him wisdom which brings him to the [spiritual] world-to-come.

Therefore, if one sees a lost article belonging to his father and [simultaneously] one belonging to his teacher, the article belonging to his teacher has priority [i.e., must be retrieved first].

The effect of these philosophical and theological teachings were manifest in all traditional Jewish communities, perhaps most particularly, however, in the Shtetl of Eastern Europe where, "The ideal man is a scholar, pale and ascetic."

This ideal, implying as it almost does, a denegation of the body, led to a frowning upon physical activity of most any kind, even in self-defense, so that in the Shtetl where provision was made for almost every problem or crisis

9. Moses Maimonides, "Book of Study of the Torah," Repetition of the Law-Mishne Torah (12th Century), Chapter 5 (free translation).

of the individual life cycle, it has been said that:

There is usually no defense organization. If organized resistance is attempted . . . it is criticized by the very orthodox as "un-Jewish."¹⁰

Interestingly, in the Jewish community, when physical activity was required, as in the pursuit of certain trades and professions, the lot consistently fell upon the prosteh (simple) man, rather than upon the sheyneh (fine) man, as described:

One [the prosteh] is the man of action, the other [the sheyneh], the man of thought.¹¹

This extreme valuation of intellect and study is doubtless responsible for the appellation that Jewish people apply to themselves, Am HaSefer--People of the Book.

Recognizing this value system, one principal of a Hebrew Day School, in a facetious vein, no doubt, describes the attitude of Jewish parents on the occasion of the first day of school for their son:

To Mr. and Mrs. Goldberg the day had come - the precedent-setting, epoch-making event in the career of Sonny had arrived . . . his ego elevated to soaring heights with repeated, "Today you are a real man," Sonny made his more or less confident way to school.¹²

Indeed this culturally determined system of values

10. Mark Zborowski, Life Is With People, p. 224.

11. Ibid., p. 147.

12. Morris Mandel, "Is Your Child Being Prepared To Live?" The Jewish Parent (undated reprint).

carries over into the schools themselves, for Jewish schools are primarily "know" rather than "do" oriented. As one evidence of this, in a national survey of parental attitude towards Jewish schools, it was found:

. . . that the majority of Jewish parents, about two thirds (67.7%), express their primary aim in terms of the various components of Jewish knowledge.¹³

1,561 community leaders were asked . . . to indicate their views concerning them [35 possible results of Jewish schooling] as aims or functions of Jewish education. . . . Evidently, here, too, [among community leaders] there is stress on "knowledge and understanding," but considerably more expression is given to importance of achievements in attitudes and personality.¹⁴

Verbalization

While it can readily be stated that spiritual and intellectual activities are not synonymous with verbal activities, nonetheless, in the value system of Jewish culture, the two are almost interchangeable.

In the scriptures, man is distinguished from the other creatures in that the Lord, "breathed into his nostrils the breath of life, and the man became a living soul."¹⁵ Traditionally interpreted, this verse describes the essence of man's position in the hierarchy of creation--created as he is from heavenly things (for he possesses the breath

13. Alexander M. Dushkin and Uriah Z. Engelman, Jewish Education in the United States, Vol. I, p. 16.

14. Ibid., p. 18.

15. Genesis, Chapter 2, verse 7.

of the Lord--"for one who breathes into, breathes from within himself"), and consequently able and required to live a spiritual life. This very same verse is translated (in the authorized Aramaic translation) as denoting the supremacy of man's verbal ability--"And He breathed into his nostrils the breath of life, and it became, in man, a speaking spirit." Thus, the very essence of man's spiritualism is interpreted, in Jewish culture, in terms of verbal ability!

At another point in the scriptures, Jewish tradition identifies and classifies the dichotomy of Jacob (Israel) and Esau (the Gentile world), in the verse, "The voice is the voice of Jacob, but the hands are the hands of Esau."

This portrayal, from a theoretical point of view, is carried over into the day-to-day living of the Jew, where it is evident, too, that the diminution of the importance of the body and the material world are not extended to the power of speech:

To the Jew the proscription of body excesses or acting out was limited to physical manifestations. With regard to verbal acting out, however, the rule was quite the opposite:

The great remedy is "out," oys--talk out, laugh out, cry out one's feelings.¹⁶

Thus, it seems reasonable to conclude that the Jewish child, in his strivings for a culturally acceptable Jewish adulthood, or more specifically, Jewish manhood, will stress

16. Zborowski, ibid., p. 328.

and maximize verbal or intellectual manifestations of maturity and independence, without regard for concomitant maturity and independence in areas involving sensory and physical manifestations.

Body-mind for the Jewish Female

As can be seen from the above, the ideal Jewish man is a scholar, pale and ascetic; but what about his wife? Is she too taught to aspire for an ascetic existence? Obviously not! The Rabbis taught, "If there is no flour, there is no Torah." Someone must go out and earn the family bread!

If she is fortunate enough to have as her husband a sheyneh yid, a "man of thought," a scholar, then she, the woman, must be prepared to tend the family business. And if her husband is prost, a man of action, she, the woman, must still assume the responsibility for the majority of mundane tasks that are part of daily living, for in the Jewish home:

She is the wife, who orders the functioning of the household and provides the setting in which each member performs his part. She is the mother, key figure in the family constellation. Moreover, the more her husband fulfills the ideal picture of the man as scholar, the more essential is the wife as realist and mediator between his ivory tower and the hurly-burly of everyday life.¹⁷

So much for contact with the realities of household

17. Ibid., p. 131.

Interpersonal Relationships

A concomitant of the dependency role of the male child in a traditional Jewish home, is his pattern of interactions with other members of the family. What is his relationship with his father? Picture this child as he comes home from school:

Father, if he is a working man, is tired from his day's work and has little time or energy for his son. If, however, he is a scholar spending his day in study, he may have time and interest, but his interest will be primarily in the child as an extension of his own ethereal self. He may question the child about his school work, perhaps even help him with a problem or two, but he is apt to be unmonstrative, for

a kheyder boy no longer sits on his father's lap, and their contact grows increasingly distant and dignified.¹⁹

Not so with his mother! As she sees it, his mind and spirit may belong to father and the "men's world," but his body is still hers, her own "flesh and blood."²⁰ Landes and Zborowski write:

To some extent neither the boy nor the girl will ever stop being a baby to the mother. She will never stop feeding, hovering, worrying about his health, warmth, safety. . . . The man is always "a child" with regard to his physical needs and domestic arrangements, dependent upon mother, sister, wife for the arranging if not for the supplying of proper

19. Ibid., p. 332.

20. Ibid., p. 329.

food, warmth, clothing, health care, and for the alleviation of, or sympathy with, any physical or mental suffering. From the time he starts to study, however, he is adult with regard to matters of the intellect, religious rituals and community affairs.²¹

One might imagine, from the previous accounting, that in matters of the world of religious ritual, at least, the Jewish male would show a greater measure of independence and early maturity. It is interesting, therefore, to note the remarks of a mature grandfather, reporting on his married daughter in terms which clearly demonstrate his own dependence upon his mother's approval or disapproval, even in this area (but referring perhaps only to such things as kosher food, shopping on the Sabbath, etc.):

They live in Flatbush . . . and we are satisfied, though my mother would have found much to criticize, had she lived long enough to check on the (religious) observance of my daughter's way of life, as she checked ours.²²

Summing up, then, the relationship between the Jewish son and his mother, it may reasonably be concluded that in essence, at least, in Edward Strecker's terms, the Jewish mother is rarely a mother at all, she is, in all likelihood, a "mom."

Strecker writes:

Mom is a maternal parent who fails to prepare her offspring emotionally for living a productive

21. Ibid., p. 331.

22. George Kranzler, Williamsburg--A Jewish Community in Transition, p. 216.

adult life on an adult social plane. A mom does not untie her emotional apron string--the Silver Cord--which binds her children to her.²³

This Jewish mom, then, is she who is ever tying her son to herself with bonds of dependency. She cares (or at least proclaims her loving care), by overflowing solicitude, for his every physical need. Her enthusiasm and thrill at his conquests in life are tempered only by the questions, "Did you wear your sweater? Were you out in the cold?" In the Jewish community,

Aside from the crises that evoke heroic action, the mother's love is manifested chiefly in two ways; by constant and solicitous over-feeding and by unremitting solicitude about every aspect of her child's welfare.²⁴

In contrast with this attention to the son's weaknesses, "mom" will rarely announce how weak or ailing she is, for in this culture, "the woman is strong and never sick," yet, somehow, children of these "moms" are clearly apprised of her boundless suffering.

"Parents 'kill themselves' for the sake of the children,"²⁵ and mom's children will be sure to hear about it from her.

Another contributor to the inhibition of independence, is the mother's frequent exhortation:

23. Edward A. Strecker, Their Mother's Sons, p. 30.

24. Mark Zborowski, Life Is With People, p. 293.

25. Ibid., p. 294.

"You shall grow strong and healthy for me!" Her phrases often include "for me" or "to me" as if whatever the child does or experiences is for or against her.²⁶

Around this child the silver cord is drawn taut. Why not? It is a life for a life--fair enough. After all, there should be great happiness in giving all for her who gave so unstintingly in bringing the child into the world and caring for it when it was helpless.²⁷

No surprise then, that in a survey of problems most frequently checked by former Hebrew Day School students now attending college, the most frequently checked problem in the area of Home and Family was "parents sacrificing too much for me."²⁸

Jewish Adjustment

The importance of dependence-independence, in the life of the Jew, may be viewed from an additional point of view, i.e., dependence upon, or adjustment to, the circumstances of national life within which the Jews find themselves. A cursory examination of Jewish history will reveal the fact that the Jewish People, as a group, have had the experience of adjusting to a multitude of circumstances, societal norms, and national leaders either forced upon them, or willingly accepted as part of the vicissitudes of life.

26. Ibid., p. 334.

27. Strecker, ibid., p. 58.

28. Boris M. Levinson, "The Problems of Yeshiva and Stern College Freshmen," Yeshiva Education 2 (Fall 1958-5719), p. 22.

When given the opportunity, as in most enlightened lands, they usually found it desirable and propitious to adapt themselves to the mores of the society wherein they found themselves. In oppressive lands, equally, or perhaps even more, they were aware of the mores of the society, for they had to know their oppressors, to apply their brand of self-preservation. In any event, and in all cases, in friendly and unfriendly lands, the Jew had to be particularly alert to the outside forces operative in his society. He found it necessary to adapt himself to the environment, and adjust himself to it, rather than rely upon his own inner feelings and needs. As a people, he became sensitized to outside cues to an inordinate degree.

Lewin looked upon the adjustment problems of the Jew with an eye towards his feeling of belonging. "Generally," he writes,

in every situation the person seems to know what group he belongs to and to what group he does not belong. He knows more or less clearly where he stands, and this position largely determines his behavior.

Nevertheless, there are occasions when his belonging to a group is doubtful or not clear for the individual. . . . This unclearness of the situation, this uncertainty about the ground upon which he is acting, leads generally to uncertainty in behavior. The person does not feel at home and will therefore be more or less self-conscious, inhibited, or inclined to over-act.²⁹

29. Kurt Lewin, Resolving Social Conflicts-Selected Papers on Group Dynamics, p. 146.

It is . . . one of the greatest theoretical and practical difficulties of the Jewish problem that Jewish people are often, in a high degree, uncertain of their relation to the Jewish group. They are uncertain whether they actually belong to the Jewish group, in what respect they belong to this group, and in what degree.³⁰

In the United States, it has been remarked,³¹ Jewish people are particularly alert to the patterns of the outside society. If they live in suburbia, they are the perfect suburbanites; if they decide to have period furniture, they carry the theme out to a "t"; if they are uptown dwellers, they are perfect uptown dwellers. In fact, it is this "faultless" adaptation to the required pattern which oftentimes distinguishes the Jew from his non-Jewish neighbor. The average American, it may be said, feels free to express a bit of his own individuality, though for the most part he may be carrying out an expected pattern; the American-Jew, however, will carry out the expected pattern with his ear attuned to all of the outside cues, suppressing completely any expression of his own inner self.

Without denying the obviously desirable goal of harmony with the environment, for this discussion it is cogent to recognize the effect that this harmony may have upon the development of feelings of independence. Indeed, it seems evident, the Jew trains himself to disregard his inner cues while paying particularly close attention to the external

30. Ibid., p. 148.

31. By Margaret Mead, in a private conversation.

cues. If Americans may be spoken of as a prime example of "other-directed people," then American Jews may be spoken of as super "other-directed people."

It is important to note that this pattern is not absent from the life of the traditionally acculturated Jew, for a leading Hebrew Day School educator lists "Harmonization of Judaism and Americanism," as a prime goal of the Hebrew Day Schools themselves:

These schools [the Hebrew Day Schools] are committed, to the raising of a generation of Jews who will be loyal to the democratic way of life. The leadership of these schools strives for integration of the best of American culture and Jewish values in their students.³²

The attempt, to this point, has been to demonstrate the cultural pressures conducive to an inhibition of independence in the traditionally acculturated Jewish child.

In contrast, then, with these ideals, attitudes, behavioral expectations, adjustments and child-rearing practices, it behooves one to consider the ideals, attitudes, and behavioral expectations prevalent in the environment of the white middle-class Protestant child, the possessor of the "American core-culture."

32. Joseph Kaminetsky, "Evaluating the Program and Effectiveness of the All-Day Jewish School," Jewish Education 27: No. 2 (Winter 1956-1957, 5717), pp. 39-49.

CHAPTER V

AMERICAN CORE-CULTURE - THE WHITE ANGLO-SAXON PROTESTANT

The American, Margaret Mead tells us, is assertive! Even when he sees his opponent as stronger than himself, he responds with strong assertive behavior. Note the difference between American and British behavior in this regard:

The English act--when they see themselves as stronger than the opponent--by giving him a handicap of some sort which will bring him up to equality, while the Americans act--when they see themselves as weaker than the opponent--by treating the difference in strength between themselves and their opponents as justifying strong assertion on their part.¹

Manifestations of assertive, independent behavior are not only fostered by American tradition, they are also part and parcel of the Protestant tradition generally, asserts David McClelland.

There is evidence that the Protestant stress on the individual's responsibility for finding his own salvation has tended to emphasize certain values like self-reliance and independence.²

1. J.L. McCary (ed.), Psychology of Personality, p. 217.

2. Ibid., p. 342.

Independence

For Americans, the attitude of independence carries with itself a strong counter-reaction towards interdependence. It is only recently, for example, that this country has abandoned its isolationist, "America-first" attitude. In the American market place, the stress is upon control of all the elements of production and distribution, within one corporation, when possible. Each individual, every commercial enterprise, and the nation as a whole, seeks to be free from dependence upon others.

This drive towards independence manifests itself, also, in the attitude of core-culture Americans towards the past and its tradition. Contrastingly, conservative, past-oriented Europeans--and highly acculturated Jews--have a kind of respect for the past and tradition which serves, in fact, as a hindrance to the development of the American style of independence from "the hold that the past has upon us!"

"Indeed," writes Florence Kluckhohn:

. . . some of the chief differences between the peoples of the United States and England derive from their somewhat varying attitudes toward time. Americans have difficulty in understanding the respect the English have for tradition, and the English do not appreciate the typical American's disregard for it.³

From another point of view, this apparent American lack of concern for--indeed, independence from--the past,

3. Florence R. Kluckhohn and Fred L. Strodtbeck, Variations in Value Orientations, p. 14.

manifests itself in an attitude of permissiveness towards children, allowing for and encouraging change, from time to time and from age to age, during the growing-up process:

Western Europeans and Americans tend to be fundamentally different in their attitudes toward conforming. Americans believe in conforming only to the standards of one's own age group and change-in-time is a strong value; Europeans believe--or have believed--in conforming to a past society and have found security in traditional behavior.⁴

David Reisman's discussion of the changing American character seems pertinent at this point. As he sees it, an earlier American stage, the phase of transitional growth, was particularly suited to the temperament of people of inner-directed character--people with a sense of control over their own lives, who see their children, also, as individuals with careers to make. Indeed, Reisman describes the rapid accumulation of productive capital that goes with transitional growth, as requiring a people imbued with the "Protestant ethic."

From this description it may be implied, in fact, he states directly, that movement towards the current stage of American growth has involved concomitant profound change in value-systems. There is less necessity, under these new conditions, for the enduringness and enterprise of the inner-directed type of person. "Increasingly," Reisman writes, "other people are the problem."

4. Clyde Kluckhohn, Mirror For Man, p. 237.

He continues:

It is . . . my impression that the conditions I believe to be responsible for other-direction are affecting increasing numbers of people in the metropolitan centers of the advanced industrial countries. My analysis of the other-directed character is thus at once an analysis of the American and of contemporary man . . . it seems appropriate to treat contemporary metropolitan America as our illustration of a society . . . in which other-direction is the dominant mode of insuring conformity.⁵

With Clyde Kluckhohn's analysis, then, of American conformity as applying only to the standards of one's own age group, we can explain, perhaps, the seeming contradiction between the independence of the Americans and the other-directedness which Reisman sees as our current mode, and also, the "conformism" which Erich Fromm sees as the disease of modern Western culture. As understood now, this "conformism," perhaps, is limited only to the very specific group of which the American is a member at any one time; allowing him the freedom, however, to change from group to group, as time and place require, with the independence that is typically American!

As Margaret Mead sees it, 'How does my child stand in relation to his age mates?' becomes the only question which can be asked [of an American] with any hope of an intelligible answer."⁶

In American culture, indeed, in any culture, that

5. David Reisman, et al., The Lonely Crowd, pp. 34-36.

6. Margaret Mead, And Keep Your Powder Dry, p. 104.

which must be learned need not be explicitly stated! It is everpresent in the experiences which society presents to the child, in fact and in fiction. American literature, with its pattern of heroes and villains, tends to emphasize our culture's stress upon the value of independence. This is evidenced in a study done at North Texas State College,⁷ where approximately 1,500 fifth and sixth grade children responded to a questionnaire about the type of story that interested them most. The children placed prime emphasis upon stories that contained an element of the hero's developing an appropriate dependence-independence pattern of behavior.

The American family, similarly, offers little con-
striction to the child, whose eyes, consequently, are on
the outside. For the American family is simply "the
launching pad!"

. . . in the American family, the child's eyes
are focused on the outside world. He wins
praise and approval as he displays that he
"loves mother" not by loving her, but by eating
his carrots and growing to be the tallest boy
of his age on the block.⁸

Insignificance of Pattern

A concomitant of this value orientation towards inde-
pendence, according to Herman Witkin, is its relationship

7. Stinson Ezell Worley, "The Relationship Between
Developmental Task Situations and Children's
Interests in Stories," Sociological Abstracts, 1961.

8. Margaret Mead, And Keep Your Powder Dry, p.

to an analytical approach to experience, to a seeing of the parts, rather than the patterned whole.

Note, then, Margaret Lowenfeld's conclusion about Americans and their lack of interest in patterned wholes. After administering a large number of Mosaic tests to American school children, she concludes:

In the American-type use of the material, the aim of the maker is generally to achieve an effect of rhythm and movement. The European aims at fitting the pieces together in accordance with their geometrical properties, and producing in the end a Symmetrical Geometrical Pattern that he finds satisfying.⁹

European subjects look for symmetry, intricate geometrical patterning and colour harmonies. American subjects tend to look in the design for "thrust" and "drive," "originality" and freedom of movement.¹⁰

To the European such patterning of symmetrical wholes is "obviously desirable." It is interesting to note Dr. Lowenfeld's rationale for the difference between American and British children, "Anyone undertaking a response to the test will naturally aim at expressing in his design those qualities that he takes for granted as obviously desirable in any kind of design."

Another researcher, using these same materials, comes to a similar conclusion:

The American youngster seems less inclined to fit into a set pattern, seems less concerned

9. Margaret Lowenfeld, The Lowenfeld Mosaic Test, p. 95. Underscoring not in the original.

10. Ibid., p. 49. Underscoring not in the original.

with the detail necessary for a painstaking performance.

The American child seems satisfied and even pleased with asymmetry and apparently feels no need to execute his pattern "perfectly."¹¹

Another aspect of analytical approach to experience, evident in Witkin's Embedded Figures Test among other places, is the ability to dissociate color from the object to which it is attached. Note then, Margaret Mead's analysis of a prime difference between British and American people:

Americans tend to arrange objects on a single scale of value, from best to worst, biggest to smallest, cheapest to most expensive, etc., and are able to express a preference among very complex objects on such a single scale. The question, "What is your favorite color?" so intelligible to an American, is meaningless in Britain, and such a question is countered by: "Favorite color for what? A flower? A Necktie?"¹²

Thus, from the evidence presented, it is evident, relatively speaking, that American core-culture stresses independence and analytical perception, as contrasted with Jewish culture which fosters dependence and patterning.

"Activity" Orientation

A further difference between American and Jewish culture is in the orientation towards "activity"--the relative value placed upon "doing" rather than "being".

11. Stewart Ursula, et al., "Mosaic Patterns of Eighth Grade Children," Journal of Projective Techniques 21 (March, 1957), pp. 73-79.

12. As reported in Lowenfeld, op. cit., p. 164.

Florence Kluckhohn in her Variations in Value Orientations, classifies the "core-culture" American as "do" oriented. Americans, when asking about an individual will ask, "What does he do?" rather than, "What is he?" for in their eyes a man is only what he does!

An interesting anecdote was related to this author about an unfortunate scholar, engaged to be married, who was told by the doctors that he couldn't expect to live beyond five additional years. At that point, he decided to give up his work (he had the means for independent support), and spend his last years studying and in other ways satisfying his just desire to explore his personal interests. His American fiancée, when informed of this decision, refused to marry him because, as she said, she "wouldn't marry someone who does nothing!"

Contrast this, then, with the traditional Jewish attitude, which places a man's scholarship far ahead of his vocation. If a man is a scholar, no further questions need be asked about his work. If he is not a scholar, well, then one may ask, "What does he do?"¹³

This attitude about doing something is not limited to "the other person," it extends even to attitudes about ourselves. For, Americans subject to the "Marketing

13. See Mark Zborowski, "The Place of Book-Learning in Traditional Jewish Culture" in Margaret Mead and Martha Wolfenstein, Childhood in Contemporary Cultures.

Orientation"¹⁴ are not interested in what they are for themselves, in their state of being, they are concerned with what their state of being can do for them in the market place!

. . . Success depends largely on how one sells one's personality, one experiences oneself as a commodity or rather simultaneously as the seller and the commodity to be sold. A person is not concerned with his life and happiness, but with becoming salable.¹⁵

It is understandable, then, that our schools, too, are "do" oriented. "What will I be able to do?" is the question asked before a student registers in a school or for a particular program. If one pursues courses towards an advanced degree, he is apt to be asked, "What can you do now?"

Our attitude, generally, towards things is oriented towards their utility. When an American picks up an object, Margaret Mead says, "He doesn't ask, 'What is this?' but rather, 'What can I do with this?'"

Erich Fromm sums it up well, when he writes:

Evidently this type of thinking has a profound effect on our educational system. From grade school to graduate school, the aim of learning is to gather as much information as possible that is mainly useful for the purposes of the market. Students are supposed to learn so many things that they have hardly time and energy left to think. Not the interest in the subjects taught or in knowledge and insight as such, but the enhanced exchange value knowledge

14. Erich Fromm, Man For Himself.

15. Ibid., p. 70.

gives is the main incentive for wanting more and better education. We find today a tremendous enthusiasm for knowledge and education, but at the same time a skeptical or contemptuous attitude toward the allegedly impractical and useless thinking which is concerned "only" with the truth and which has no exchange value on the market.¹⁶

Thus, in conclusion, to this researcher at least, it seems evident that American core-culture differs from traditional Jewish culture in at least three main respects:

(1) The Americans value independence, in contrast with the traditional Jewish value-system which, while it stresses independence in intellectual areas, allows for the achievement of this goal, for the male at least, through dependence in areas of material or sensory activity.

(2) The Americans stress movement and asymmetry in contrast with the Jewish penchant for pattern and tradition.

(3) The Americans are "do" oriented, looking at people and things with a view towards their utility in contrast with the traditional Jewish attitude deprecating manifestations of physical activity.

16. Ibid., p. 76.

CHAPTER VI
DESIGN OF THE STUDY

The purpose of this study was to probe the effect of culture upon "psychological differentiation" or "field dependence"--the style of cognition first identified by Herman Witkin and subsequently studied in depth over a period of many years. It seemed reasonable, therefore, to replicate, in selected areas, the test situations presented to Witkin's normative group.

In 1949, a series of perceptual tests was administered to five different age groups (8, 10, 13, 15, and 17 years of age) consisting, each, of 30 boys and 30 girls. Additional groups were subsequently chosen for more intensive study, including a group of 14 boys and 14 girls at the ten-year level. These groups were supplemented, finally, by a group of 24 boys.

Early in the work it was determined that there was a consistent difference between boys and girls in the performance of these perceptual tasks. Consequently, the Witkin research team decided to concentrate upon the group of 68 ten-year-old boys alone, for their main study of "self-consistency as a function of extent of differentiation."

Except for the projective tests, a sampling of the significant measures used in the earlier work was included in this study. Thus, from the perceptual test battery this study included the Body Adjustment Test (BAT) and Embedded Figures Test (EFT), from the intellectual test battery it included the ten prime subtests of the Wechsler Intelligence Scale for Children (WISC), and from the body-concept tests it included figure drawings. In addition to these measures, an original measure was introduced in this study, the Verbal Disembedding Test (VDT).

Perceptual Tests

The Body Adjustment Test is Series "2a" and "2b" of the Tilting-Room-Tilting-Chair Test described in detail in Witkin.¹ Essentially, what is involved here is an evaluation of the subject's perception of the position of his body when presented with conflicting visual and kinaesthetic cues. Informed and shown that the chair and the room can each be tilted, the subject, with eyes blindfolded, is rotated into a tilted position while the room in which he is seated is itself separately rotated into a tilted position still farther removed from the true upright. In series "2a" (BATA), both the subject and the room are tilted in the same direction. Thus, when the blindfold is removed, the subject is immediately faced with the

1. Herman A. Witkin, et al., Personality Through Perception.

conflicting cues. The pressure of the chair on the side of his body is a cue to the true direction of the tilt, but the appearance of the room (tilted even farther from the upright), leads him to believe that he is leaning in the opposite direction. The subject's task is to direct, as needed, a change in the position of his body until he believes himself to be in a true upright position. The instructions given to him by the experimenter are:

I will now move your chair slowly, until you think it is straight with the walls of the building out here, so that you are sitting straight up and down the way you were when you came in. After each turn, tell me if the chair has been moved enough or whether you want it moved some more.

A subject, therefore, who succeeds in coming close to the upright position, demonstrates an analytical approach involving a marked awareness of the kinesthetic cues available to him. A subject who fails, it would seem, is markedly affected by the whole surrounding visual field, accepting, at least in some measure, the room's vertical axis, tilted as it is, as the true upright. His approach to the test situation appears to be more global in nature, with a disregard or lack of awareness of the separate kinesthetic cues available to him.

In series "2b" (BATb), the subject is subjected to a similar situation except that now, he and the room are tilted in opposite directions. In this case, gross errors in determining the true position of the body-upright are similarly due to the effect of the surrounding field, and

may include the subject's passing through the position of true upright, without recognition, and continuing through to some distorted position.

The Embedding Figures Test, developed and described by Dr. Witkin in the same book, is similar to the Body Adjustment Test in that the subject is required to deal independently with cues, without being markedly affected by the conflicting pattern of the total surroundings. This test, making use of the Gottschaldt² figures, colored in such a manner as to enforce the effect of the total pattern, requires the subject to locate simple figures within the structure of encompassing complex figures.

In this study, only twelve of the original twenty-four items were used, following Jackson's³ recommendation. The cards used: A-1, A-2, A-3, B-1, C-1, C-2, D-1, E-1, E-2, F-1, G-1, and H-1 are those which were found to be most discriminating for children and are, in fact, regularly used in the Witkin laboratory, when time is at a premium.

Extending the similarities involved in these two test situations to areas beyond the realm of the purely perceptual, Witkin and his associates investigated the relationship between these perceptual tests and tests involving

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2. L. Gottschaldt, "Über den Einfluss der Erfahrung auf die Wahrnehmung von Figuren, etc.," Psychologische Forschung 8 (1926), pp. 261-317.
 3. D.N. Jackson, "A Short Form of Witkin's Embedded Figures Test," Journal of Abnormal and Social Psychology 53 (1956), p. 254.

similar analytical functioning in intellectual activities.

Intellectual Tests

Ten subtests of the Wechsler Intelligence Scale for Children were used as a measure of intellectual activity. The Maze and Digit Span Tests were omitted because they are generally used only as alternate subtests. Furthermore, Wechsler's reported intercorrelations and reliability measurements of the verbal, performance, and full scale scores do not include these tests.

Earlier factor analyses of the WISC (e.g., Jacob Cohen),⁴ as well as Witkin's analysis, extract a factor which Cohen, in his article, called "perceptual organization." It is described as requiring "interpretation and/or organization, of visually perceived materials against a time limit." Three subtests of the Wechsler Scale provide the substantial loadings on this factor. The high loadings of these same tests: Block Design, Picture Completion, and Object Assembly with similarly high loadings for Body Adjustment and Embedded Figures on this factor, were assumed by Herman Witkin to lend support to his hypothesis that

there is a general cognitive style which runs through perceptual and intellectual functioning.⁵

4. "The Factorial Structure of the W.I.S.C. at Ages 7-6, 10-6, and 13-6," Journal of Consulting Psychology 23 (1959), pp. 285-299.

5. Psychological Differentiation, p. 69.

Defining the similarity which runs through these perceptual and intellectual tests, Witkin found it necessary to broaden his earlier designation of "field dependence" as the appropriate label for the dimension under study, and extend it to reflect an ability to overcome an embedding context or, "differentiation." As described:

This ability, when developed, makes possible an analytical way of experiencing; inability to overcome a context results in a global way of experiencing.⁶

This broader interpretation of the self-consistencies involved in these tasks, now led to the proposition of the applicability of the concept of "differentiation" to articulation of the body-concept.

Figure-Drawing Test

In essence, human figure drawings have frequently been used, by clinicians and investigators alike, as an available medium for obtaining evidence about an individual's self-image. Hanna Marlens developed a scale for rating figure drawings according to the degree of primitivity or sophistication evident in the figures represented in the drawings.⁷ The rationale for the hypothesized relationship between an analytical way of experiencing and an articulated figure representation is based upon the subject's conception of the limits or "boundaries" of his body, and the

6. Loc. cit.

7. Ibid., pp. 119-121.

discreteness of the "parts" within the body. This is predicated upon the notion that the absence of adequate boundaries between the body and things outside it, is not dissimilar from the fusion of body and room which seems to suggest itself as being operative on the Body Adjustment Test. When the subject aligns his body to the tilt of the room and insists that he feels no tilt, and furthermore, that his "body is straight with the walls of the building out there," and that, in fact, this is the way he sits at his desk at school and at his table at home, it seems reasonable to assume a case of relatively permeable boundaries.

The Marlens Scale identifies three categories of characteristics that provide a basis for estimation of the degree of primitivity or sophistication evident in a figure drawing. These categories are: the form level of the drawings, the extent of identity and sex differentiation of the figures, and the level of detailing. In the original formulation of this scale, a range of five points was used. For this study Dr. Marlens revised her scale to encompass a range of nine points.

Verbal Disembedding Test

A detailed description of the Verbal Disembedding Test, together with information on its reliability, appear in the Appendix. For our purposes here, suffice it to say that the test appears to conform with the job analysis of the

Embedded Figures Test in at least two major respects:

(1) the subject is presented with visual sensations which simultaneously lend themselves to global as well as conflicting analytical perceptions, and (2) the resolution of this conflict makes it necessary for the subject to extract, or disembed, something from a global context within which it is obscured.

The difference between the two tests lies in the nature of the embedding context. In the case of Embedded Figures, the embedding context is a geometric pattern reinforced with color, whereas, in the Verbal Disembedding Test, the embedding context is verbal, composed of a series of related words.

CHAPTER VII
HYPOTHESES TESTED

The general hypothesis that was tested was that a relationship exists between certain aspects of cognitive functioning and cultural patterns. Furthermore, this study tests the expectation that this relationship is a function of the degree of acculturation to the dominant American culture.

The rationale for the study was based primarily upon the findings reported by Herman Witkin and his associates, in their formulation of the "Differentiation Hypothesis" as a theoretical construct, designed to reflect the self-consistency of individuals with regard to articulation of experience.

An analytical [or articulate], in contrast to a global way of perceiving entails a tendency to experience items as discrete from their backgrounds, and reflects ability to overcome the influence of an embedding context.¹

People who are analytical, according to the hypothesis, are likely to reflect this mode in a number of situations including the perception of familiar figures within a complex design, orientation of the body towards the upright in

1. Witkin, Psychological Differentiation, p. 57.

a tilted visual field, degree of sophistication in human figure drawings and Perceptual Organization in the Wechsler Intelligence Scale for Children (Block Design, Object Assembly, and Picture Completion).

This study has tested the consistency of this clustering when applied to Jewish children residing in New York City, who are of Eastern European background and have received an intense Jewish acculturation. These results were then compared with white Anglo-Saxon Protestant children of similar socio-economic status. Finally, a comparison was made between these results and the results of the analysis of the Witkin data. Furthermore, this study tested the contention that there are homes--or sub-cultures--which foster field-dependence while others foster field-independence.

As discussed in detail earlier in this paper, traditional Jewish homes tend to inhibit the development of independence, specifically, at least, in sensory, body modalities. Consequently, as a rule, such home environment could be categorized as "interaction inhibiting differentiation,"² in contrast with the white Anglo-Saxon Protestant home environment, which could, as a rule, be categorized as "interaction fostering differentiation." Thus, it was expected that the Jewish children would be more field-dependent than their Protestant neighbors.

2. Ibid., p. 283.

The final major purpose of this study was to test the notion that while Jewish traditional culture is seen as fostering field-dependence, this effect should be evinced only in tasks involving sensory modalities, but for tasks involving verbal or intellectual skills, the Jewish tradition should have an opposite effect, i.e., independence-fostering.

The following specific hypotheses were therefore tested:

Major Hypotheses

1. The patterns involved in the field-dependence-independence continuum are a product of the specific culture identified as American "core-culture."
2. With regard to certain specific correlates of personality and cognitive behavior, boys exposed to an intense Jewish acculturation perform differently from their counterparts in the Protestant community.
3. The magnitude of this difference is related to the intensity of Jewish acculturation as determined by type of schooling and degree of traditional Jewish observance in the home.

The substantiation of these hypotheses was to be based upon the following sub-hypotheses:

Sub-Hypotheses

1. Performance on tasks requiring the use of the body or sensory modalities in an analytical manner, is

negatively related to Jewish acculturation.

2. Performance on tasks requiring the use of verbal or intellectual competencies, is positively related to Jewish acculturation.

3. Ability to overcome embeddedness within a perceptual field is negatively related to Jewish acculturation.

4. Performance on the intellectual-perceptual subtests of the Wechsler Intelligence Scale for Children (Block Design, Object Assembly, and Picture Completion) is negatively related to Jewish acculturation.

5. Sophistication of the body-concept, as determined by human figure drawings, is negatively related to Jewish acculturation.

6. Performance on verbal subtests of the Wechsler Intelligence Scale for Children is positively related to Jewish acculturation.

7. Performance on tests involving verbal disembedding is positively related to Jewish acculturation.

8. Performance of the Jewish children in the Witkin normative group, in the areas tested by sub-hypotheses 3, 4, 5, and 6, is intermediary between the performance of the two experimental groups.

The substantiation of the three major hypotheses as well as the substantiation of sub-hypotheses 1 and 2 was to be based upon the confirmation of the other sub-hypotheses, as follows:

Sub-hypotheses 3, 4, and 5 were used as evidence

of the substantiation of the generalization stated in sub-hypothesis 1.

Substantiation of sub-hypotheses 6 and 7 were to be used as evidence of the substantiation of the generalization stated in sub-hypothesis 2.

Substantiation of sub-hypotheses 1 and/or 2 were used as substantiation of major hypothesis 2.

Substantiation of sub-hypothesis 1 was used as substantiation of major hypothesis 1.

Substantiation of sub-hypothesis 8 was used as substantiation of major hypothesis 3.

Statistical Treatment of the Data

The analysis of the data of the relevant sub-hypotheses is here described:

Sub-hypothesis 3. The results of the Body Adjustment Test and the Embedded Figures Test were used to determine ability to overcome an embeddedness within a perceptual field. For the Body Adjustment Test, the scores were the absolute number of degrees of deviation from the upright recorded when the subject declared himself to be in an upright position. These scores were then totaled separately for the first three tests (body and chair tilted to the same side), and the last three tests (body and chair tilted to opposite sides).

The results for the two experimental groups and the normative group were compared by F and t test. Since

the direction of the dependent variable was predicted, i.e., the highly acculturated Jewish group was expected to have the highest scores, a one-tail test might have been used.³ The tables, however, show level of significance, as for a two-tail test.

Scores on the Embedded Figures Test were measured in seconds, with a maximum of 300 seconds allowed per design. F and t tests were used to compare the three groups on this measure, using the reciprocal of the Embedded Figures scores.⁴ A one-tail test might have been used for this comparison, too, with the expectation that the highly acculturated Jewish group would score lowest on these reciprocal measures.

Finally, an index based upon the composite z scores for all three of these measures was subjected to similar treatment.⁵ The sign on the z score distribution of the Body Adjustment Test was inverted, in consonance with the direction of the reciprocals of the Embedded Figures Test, then totaled and averaged.

Sub-hypothesis 4. Using scaled scores for seven of the subtests of the Wechsler Intelligence Scale for Children (Information, Comprehension, Arithmetic, Similarities,

3. Allen L. Edwards, Statistical Methods for the Behavioral Sciences, p. 258.

4. Standard procedure when comparing speed and power tests.

5. Edwards, op. cit., p. 104.

Vocabulary, Picture Arrangement, and Coding), the sample groups were compared. Finding some disparity, an analysis of co-variance was used to eliminate the effect of general intelligence--as measured by these seven subtests--from the intellectual-perceptual index.

It is to be noted that while the three tests have usually come up together in factor analyses of the Wechsler Intelligence Scale for Children, nonetheless, there is an essential difference between the Picture Completion Test and the other two tests, in that Picture Completion does not involve any manipulation of materials. For the highly acculturated Jewish group being studied, it was felt possible, or even likely, that Picture Completion would factor out differently from the other two tests because of this absence of manipulative skill (see the earlier discussion of Jewish subculture, and its relevance to this point). Consequently, since the use of all three subtests of perceptual organization may limit the significance of the difference between groups, in one analysis of this aspect of the study, the Picture Completion Test was eliminated. Thus, an analysis of co-variance was also done by computing a composite score on the seven subtests, and then comparing the deviation scores on the two tests, Block Design and Object Assembly.

A one-tailed test at the .05 level of significance

might have been used,⁶ with the highly acculturated Jewish group expected to score lowest, though, here again, the tables in this study will report significance at the two-tailed level.

Sub-hypothesis 5. The figure drawings were scored on a nine point scale,⁷ applying F and t tests. A two-tailed test was again reported, with the highly acculturated Jewish group expected to score lowest.

Sub-hypothesis 6. To test this hypothesis, the sample groups were compared on the performance subtests of the Wechsler Intelligence Scale for Children. Since the groups may be considered as coming from one population, they were compared on the five verbal subtests. A two-tailed test at the .05 level of significance was reported, with the highly acculturated Jewish group expected to score highest. An analysis, also, of the difference between the groups with regard to the average number of I.Q. points between the Verbal and Performance I.Q.'s was performed.

Sub-hypothesis 7. To test this hypothesis, the two experimental groups were compared by t test at the .05 level of significance. A two-tailed test was reported with the Jewish group expected to score lower.

6. Allen L. Edwards, Experimental Design in Psychological Research, p. 333.

7. "Sophistication of Body-Concept Scale," reported in Herman Witkin, Psychological Differentiation. Modified for this study by Dr. Hanna Marlens.

Additional Statistical Studies

Pearson product-moment correlations⁸ were carried out between the Verbal Disembedding Test and a composite score for field-dependence-independence, for the two experimental groups. The results of these correlations were used as one of the criteria of validation for the Verbal Disembedding Test, as follows:

If both experimental groups had shown high correlations between their performance on this test and field-dependence, it would have justified the assumption that the Verbal Disembedding Test, indeed, taps the same sources as the other recognized measures of field-dependence. Since the Protestant group alone demonstrated a high correlation between these two measures, it justified the assumption of the validity of the test, but for core-culture Americans, alone--as, indeed, this study suggested in its major hypotheses.

As indicated earlier, one of the main problems facing researchers in this area has been the fact that tests of verbal disembedding constructed heretofore, seem overly weighted with factors attributable to verbal competencies generally. Consequently, for the Protestant group whose performance correlated well with field-dependence, an analysis of the results was made, by means of a first order partial correlation coefficient, correcting for the effects of verbal competence.

8. Allen L. Edwards, Statistical Methods for the Behavioral Sciences, p. 142.

CHAPTER VIII
ANALYSIS OF THE SAMPLING GROUPS

The Jewish sample of 57 boys was selected from among children attending a Hebrew All-Day School in a lower middle-class neighborhood of Brooklyn. The school is an all-boys school in a neighborhood with a large Orthodox Jewish population of Eastern European origin. The children were randomly selected, and represent almost all of the fourth and fifth graders conforming to the following criteria:

1. aged closest to the tenth birthday,
 i.e., between $9\frac{1}{2}$ and $10\frac{1}{2}$ years old,
2. born in the United States, and
3. unidentified by the school authorities as
 being in need of psychological help.

Permission for participation in the study was requested of the parents of the subjects. In view, however, of the fact that no parent refused his permission, there is no selectivity in the sample with regard to this factor.

It is difficult, generally, to determine the precise constellation of reasons contributing to a family's decision to send its children to a school of this type. In some cases it may be due to the direct influence of others

upon the parents of the child, e.g., grandparents, friends, or Rabbi; and, in other cases, it may be due to the inadequacies of the alternative schools in the neighborhood. For Jews who are personally "observant," however, the usual reason for the choice is a desire to perpetuate those values which are cherished as "Jewish values." As Nulman, in his study of Hillel Academy, suggests:

There are parents who are observant Jews and are deeply interested in things Jewish. They enroll their children in Hillel Academy because they are certain that the program of the school is in agreement with their own way of life. They feel that the school will instruct their children in the knowledge of the Torah and thus assist the home in transmitting the Orthodox way of life to their children.¹

The parents of the Jewish sample are predominantly "observant" Jews, as evidenced by the code-identified questionnaire filled out by 49 of the children. (A copy of the questionnaire is included in the Appendix, as well as the procedure used for validating the individual items.) Forty-five of the respondents listed their families as affiliated with an Orthodox Synagogue. Such affiliation in itself, however, is a poor indication of the degree of religious observance in the home. Many adults, let alone the children who were, in the study, the respondents to this questionnaire, are often confused as to what constitutes Orthodoxy, Conservatism, or Reform Judaism.

1. Louis Nulman, The Parent and the Jewish Day School, p. 97.

Observance of the Sabbath and kosher food laws, however, are often less subject to confusion and are considered the mark of an observant home. The practice of formal daily prayers, in conjunction with the wearing of phylacteries, is additional evidence of religious commitment on a very personal level. As Nulman notes:

What criteria can be used to determine who is an observant Jew? From the Orthodox point of view, a person is observant if he lives in accordance with the principles of the Shulchan Aruch (code of Jewish Law). It is quite understandable that no two individuals could observe ritual in the same identical manner or to the same degree of intensity. However, it is generally agreed that if a person practices the laws connected with Shmiras Shabbos (Sabbath observance), kashrus and the holidays, he is considered observant. In this study it was found that although there were some families which observed daily prayer (with phylacteries for the men), and kashrus, the Sabbath was not observed; hence such families could not be classified as "observant." In fact, it became evident from studying the data that one who rated as a complete Sabbath observer was consistently observant in other areas of Jewish religious practice.²

To determine the degree of religious observance in the homes of the sample children, the questionnaire probed the state of religious and Sabbath observance in the home. With regard to religious observance, 44 children indicated that in their homes (1) kosher food only is eaten, (2) Kiddush is recited on Friday nights, and (3) the father of the household observes the laws of tfillin (phylacteries) daily. The five additional respondents checked

2. Ibid., p. 44.

only two of these points.

With regard to Sabbath observance, 42 of the children checked all of the following as practiced in their homes:

1. On the Sabbath, I do not write with a pencil or pen.
2. On the Sabbath, my mother neither cooks nor goes shopping.
3. On the Sabbath, I turn the lights, T.V., or radio neither on nor off.
4. I observe all of the above, and so do all the other unmarried members of my family.

Six additional children checked only three of these items. In view then, of the predominance of religiously-oriented homes among these children, this sample group may be considered significantly affected by the Jewish attitudes and values prevalent among their classmates.

Another factor contributing to the high degree of Jewish acculturation in these homes, is the level of Jewish education of the parent. In this group, twenty-seven children come from homes where the father has completed, at least, a Hebrew High School education or its equivalent. An additional 9 children come from homes where the mother, if not the father, has had a substantial Jewish education. Thus, 14 children come from homes where both mother and father have had a good Jewish education, and 22 additional children come from homes where at least one of the parents has had a good Jewish education. In this group, in addition to the home itself, which serves to convey Jewish values and attitudes, the school which these children are

attending, serves also in this capacity, and tends to reinforce traditional Jewish values.

The Hebrew All-Day School

In America today there are three distinct types of schools in which Jewish children receive their Jewish education: the Sunday school, the weekday afternoon school and the all-day school.³

In a general way, it may safely be assumed that the majority of children attending a Hebrew All-Day School are much affected by the values, ideals, and behavioral expectancies of Jewish acculturation. This is true both in an absolute sense and in a relative sense--when compared with children in the Jewish weekday afternoon schools and Sunday schools. In citing the aims and objectives of the All-Day School, the president of the board of one such school claimed:

The fundamental objective of the Yeshivah Day School (Hebrew All-Day School) program is the maximum diffusion of Torah knowledge and infusion of Torah spirit, among our children. The Day School program is actually a method of conveyance of our educational heritage--which would otherwise be impossible in this day and age.⁴

The intensity of the Jewish program in these schools is evidenced by the findings of a committee established to survey the state of Jewish education in the United States

3. Ibid., p. 1.

4. H. Jerome Sisselman, "The Case of the Yeshivah All Day Hebrew School" (paper read at the American Association For Jewish Education, Baltimore, Maryland, May 29, 1947).

The Day Schools devote from an average of 11½ hours in the first grade to an average of 20 hours weekly in the top grade, to the Jewish studies only, and about as much time again is devoted to the general non-Jewish subjects, which are taught more or less on the pattern of the public school studies. . . . It should be noted that in a modern Day School there are numerous opportunities also for using Jewish themes and experiences in the general studies . . . then too, the Day School program is planned for full eight years of elementary schooling for ages six to 14, with opportunities for continuation into high school years.⁵

Furthermore, it seems important to note, that the children of the Hebrew All-Day Schools accept their Jewish education as natural and desirable. The long hours imposed by dint of their double education appears acceptable to these children. In fact, Dushkin and Engelman note:

It would seem that the children in Orthodox schools have more positive attitudes toward their schools and studies than do the children in other schools. Whether this is due to greater parental interest which is transmitted to the children, to the stressing of concrete activities and commitments in the observance of ritual, or to other factors, needs further study. The likelihood is that it is connected more with intensity of schooling, and the ensuing sense of achievement, than with any other factor.⁶

In this sample, it is interesting to note that of the 47 children who responded to a question probing their satisfaction with school, 31 children indicated satisfaction with both their Hebrew and secular classes, and 11 children

5. A.M. Dushkin and U.Z. Engelman, Jewish Education in the United States, Report of the Commission for the Study of Jewish Education in the United States, p. 178.

6. Ibid., p. 16.

indicated satisfaction, at least, with their Hebrew, if not with their secular classes, but 6 children only, indicated lack of satisfaction with Hebrew classes or with both, Hebrew and secular classes.

In addition to the above, the school from which this sample was chosen, is a particularly intense Hebrew Day School as measured by the language of instruction (Yiddish), and the absence of co-educational facilities.

The "Ivrit b'Idit" [Hebrew-Yiddish] Yeshivah . . . uses Yiddish as the language of instruction which it feels is the best vehicle to achieve the intensive aims of Jewish learning and living which it holds out for itself. Employing teachers who have fairly recently arrived from abroad or who are most closely identified with the "Yeshivische Welt," it pursues the goals . . . with unusual intensity.⁷

Further criteria which justify the designation of this school as particularly intense--insofar as Jewish acculturation is concerned--are (a) relatively more time spent on religious studies than on secular studies, (b) religious studies given during the prime morning hours, (c) religious subject teachers all being ordained Rabbis, and (d) the school being under the overall supervision of the administrator of the religious department.

On the basis, then, of the state of the religious observance of the children, as well as their attendance

7. Joseph Kaminetsky, "Evaluating the Program and Effectiveness of the All-Day Jewish School," Jewish Education 27:No. 2 (Winter 1956-7, 5717), p. 42.

in a Hebrew Day School, this group is typical of children affected by strong Jewish acculturation. As has been discussed earlier, this group of children is uniquely different from the dominant American culture group--white, Anglo-Saxon, Protestants.

Core-Culture Americans

It is generally recognized that the white Protestant population of the United States is, by far, the dominant sub-culture of middle-class Americans. As Alfred McClung Lee⁸ reports, the tendency, over the years, of the great variety of ethnic and religious groups that make up the aborigine and immigrant populations of the United States, has been to blend and become assimilated into four main ethnic-like segments. He writes:

Currently, these ethnoid segments of the American population are apparently becoming, in the order of their size, the "white Protestant," "Roman Catholic," "colored," and "Jewish."⁹

Within the "white Protestant" group, it is generally recognized that Anglo-Saxon heritage is most closely identified with early America and American "core-culture." Accordingly, the sample of choice, in this study, was Episcopalian and Presbyterian children of Anglo-Saxon heritage. The Episcopalians are, of course, the direct

8. "Sociological Insights Into American Culture and Personality," Journal of Social Issues 7:No. 4 (1951), pp. 7-15.

9. Ibid., p. 11.

spiritual heirs of the Church of England, and "two thirds of those whose names are signed to the Declaration of Independence were members of the Episcopal Church."¹⁰ The Presbyterians, as is well known, are also significantly represented in early America, in such groups as the New England Puritans.

To achieve a balance between the Protestant and Jewish samples, an attempt was made to secure children from private sectarian schools. It came as a surprise to discover that the dominant American culture group is, in fact, a minority group in cosmopolitan New York City! Accordingly, despite the cooperation of school administrators, the search for such children was not particularly fruitful. A relatively small number of Protestant schools were found in New York City, and those which were found did not cater exclusively to Episcopalian or Presbyterian children, nor even specifically to Protestant children. When, in addition to the criterion "white Protestant," the additional restriction of Anglo-Saxon heritage was applied, but from one to three eligible children were found in each of the schools.

Consequently, the search for children was broadened, and aid was solicited from ministers of the Presbyterian and Episcopal churches located in those areas of the city

10. Encyclopedia Britannica (1964 edition), Vol. XVIII, p. 612.

which could be characterized as "old" Protestant neighborhoods. Here again, unfortunately, but limited success was experienced, attributable, in the main, to two prime factors: (1) "old" families, especially those with young children, have moved to the suburbs of Long Island and New Jersey, and (2) mothers are not particularly anxious to "subject" their children to a four-hour battery of tests in a strange and, oftentimes, distant part of the city. The permission which was granted by the N.Y.C. Board of Education--to test children during school hours--was not sufficiently helpful, because the inclusion of the particular children was still contingent upon the identification of these children without school help, i.e., through outside sources (e.g., the local churches), and the presentation of a signed permission slip from the parents.

The difficulties described necessitated limiting the Protestant sample to a group of thirty children. Even with this limitation, however, several children had to be included, who were associated with a Congregationalist Church. The final sample then, procured from ten churches or church affiliated schools (and from four of the five boroughs of New York City), included 18 Episcopalians, 7 Presbyterians, and 4 Congregationalists. One of the children, attending an Episcopal school, identified his parents as of Unitarian persuasion.

The children were all identified by local ministers as being of Anglo-Saxon heritage on, at least, one side of the

family. In a number of cases, the families were of such "old" stock, that the children themselves could not recall having heard discussed the nature of their original heritage.

Of the twenty-five children who were able to provide information about the nature of their parents' schooling, 17 reported that both parents had exclusively attended public schools for both elementary and high school education. One child only, reported that both of his parents had enjoyed private education exclusively. The balance of seven children reporting, either did not know about both the elementary and high school education of their parents, or came from homes where the parents had, during their own youth, enjoyed a mixture of public and private education. This group then, is a typical sample of white Anglo-Saxon Protestant subjects with the limitation, only, that they are volunteers.

It seems of importance to recognize that as a group of volunteers, the children may include a predominance of bright well-adjusted children (whose parents were proud, or at least, unashamed of the performance they expected their children to give), and poorly adjusted or under-achieving children (whose parents' interest in the study may have been prompted by the free psychological report which they were to receive at the conclusion of the study).

Within Normative Group

The Witkin sample was composed of three separate groups tested at different times over the course of several years. Of the 68 children used in the studies, 56 were Jewish by both parents, 3 were half-Jewish or were of Jewish heritage but currently practicing Ethical Culture, while the balance were of other religious persuasions. All of the subjects were from the public schools located in the Flatbush section of Brooklyn. Twenty of the 24 Jewish children for whom this information is available, were attending a Hebrew Afternoon school after regular school hours. In terms of identification with Jewish values, then, the Jewish children within this group are intermediary between the two experimental groups. The combination of limited attendance at an afternoon religious school while living in a home where religious observance is practically nil--according to the criteria reported above, in the description of the Jewish sample--justifies the designation of this group as typical of partially acculturated Jewish children. Witkin further describes the children as follows:

At the time they were studied in the laboratory 59 of the 68 boys were living with both parents. Four whose parents were separated or divorced and one whose father had died were living with their mothers. One, whose mother had deserted the family, was living with his father. Two were living with their mothers and stepfathers and one was living with his father and a stepmother. Subsequent to the testing of the children, but before interviews and testing of mothers

was completed, two mothers died.

All fathers were employed at the time of the study, and all families were self-sustaining, although income levels varied considerably. Approximately one-third of the fathers were in professions or were owners of factories or businesses. About two-thirds of the families belonged to a middle-income group, with fathers employed as salesmen, transport workers, accountants, skilled factory workers, or in clerical positions. Only a few were unskilled laborers in low-income brackets. About one-third were home owners, mostly of quite large and elaborate homes. Families who did not own their homes lived in small apartments. With the exception of families who had moved into homes of their own, many lived in the same apartment where the children were born. Most of the families had two children at the time of the study.

Some indication of the value placed on home life by these parents was given by the well-kept, clean, adequately to extremely well-furnished homes. All of the children were receiving some form of religious instruction at the time of the study, though, for a few parents, such instruction had cultural rather than religious value. Nearly all parents placed great emphasis on education and hoped for upward social mobility for their children.¹¹

Of the 68 children in this group to whom the perceptual tests were administered, 30 also took the Wechsler Intelligence Scale for Children, and for them, data is available on all the subtests except Arithmetic, Similarities, Picture Arrangement, and Coding. In this study, when dealing with Witkin's group, the data refers, primarily, to the 56 Jewish children who took the perceptual tests and of that group, to the 26 children who also took the Wechsler test.

11. Herman A. Witkin, Psychological Differentiation, p. 32.

General Considerations

Some information with regard to other aspects of the background of the three sample groups is reported below. This information has been gleaned, primarily, from the questionnaire filled out by the Jewish and Protestant groups. A limited amount of information about the Witkin group is available and has been culled from interview data made available by the Psychology Laboratory of the Downstate Medical Center.

Parents' place of birth. The Jewish sample is of Eastern European origin, with 18 of the children coming directly from homes where both parents are known to have been born in Eastern Europe, and at least 10 coming from homes where at least one parent is known to have been born there. In 18 other cases, the children come from homes in which both parents were born in the United States. In some 7 of the children's homes, one parent is known to have been born in the United States, while the other parent was or may have been born in Eastern Europe.

Of those parents who were born in Europe, at least 16 came to the United States as children or as unmarried youths. Thus, while all of the children are of Eastern European origin, at least 43 parents were born in the United States, and 16 additional parents came to the United States as children, or at least before they were married. Eleven of the parents had been imprisoned for

some time in a German Concentration Camp.

Among the Protestant group, 23 children came from homes where both parents were born in the United States, and 6 others came from homes where only one parent was born in the United States. In all of the latter cases, the foreign-born parent came to the United States as a child or, at latest, as an unmarried youth. At least two of these parents were born in Great Britain. In one case, the foreign-born mother came from Hungary.

Home environment. The home environment of both the Jewish and Protestant groups may be considered normal. That is, in every case but one, both parents were alive and at home, at the time of the study. The father of one of the Jewish children was not alive at the time of the study.

Bilingualism. In the Jewish sample, fully half the children came from homes where either English is not the main language, or if it is the main language, a second language, usually Yiddish, is used frequently. On the other hand, among the Protestant children, English is always the prime language, though in 20% of the homes, a second language is also frequently used.

Socio-economic status. It is difficult to find any one standard of measure for socio-economic status which would be acceptable to all, or most, sociologists. The

occupation of the breadwinner, however, is most commonly accepted as a valid determinant. Srole¹² uses three separate measures for socio-economic status: income, occupational and educational level. In addition to these, he also estimates the socio-economic status of the house and its furnishings. For occupational level, he distinguishes six levels, three at the "white collar" and three at the "blue collar" level. In general, he distinguishes between proprietors and their employees only insofar as their work may be different.

Other researchers (e.g., Levinson¹³), similarly, use occupation as the determinant but follow the classifications of the U.S. Bureau of the Census. They distinguish five levels: professionals and kindred workers, managers and proprietors, skilled workers, semi-skilled workers, and clerical and sales workers.

Sims,¹⁴ similarly, uses five groupings but divides them somewhat differently. It is these groups which are used in this study, as the determinants of the socio-economic status level of the families:

Group I. Professional men, proprietors of large businesses, and higher executives.

12. Leo Srole, Mental Health in the Metropolis.

13. Boris Levinson, "A Comparative Study, etc.," Journal of Genetic Psychology 97 (1960), pp. 93-112.

14. Sims Score Card for Socio-Economic Status, Bloomington, Illinois: Public School Publishing Co., 1927.

- Group II. Commercial service, clerical service, large land owners, managerial service of a lower order than in Group I, and business proprietors employing from five to ten men.
- Group III. Artisan proprietors, petty officials, printing trades employees, skilled laborers with some managerial responsibility, shop owners, and business proprietors employing one to five men.
- Group IV. Skilled laborers (with the exception of printers), who work for someone else, building trades, transportation trades, manufacturing trades involving skilled labor, personal service, small shop owners doing their own work.
- Group V. Unskilled laborers, common laborers, helpers, "hands," peddlers, varied employment, venders and unemployed.

The distribution of the children according to these groupings shows the following pattern:

	I	II	III	IV	V	Unknown	Total
Jewish	16	9	11	12	1	1	50
Protestant	12	12	1	2	1	2	30
Total	<u>28</u>	<u>21</u>	<u>12</u>	<u>14</u>	<u>2</u>	<u>3</u>	<u>80</u>

For the Witkin group, limited data only is available, showing the following:

Among the 26 subjects who took all of the tests (including the Wechsler Intelligence Scale), information about the fathers' occupation is available for 20 of the children, showing this distribution:

Group	I	II	III	IV	V	Unknown	Total
	5	6	4	5	0	6	26

Among the 38 additional children (who took the perceptual tests only), information is available that 9 parents are in the professions, while 29 parents are in other

occupations.

Thus, based upon the available information, the Jewish sample and Witkin's sample each show, roughly, 25% of the fathers as professionals and 75% in other occupations. In the Protestant sample, however, 40% are professionals while 60% are in other occupations.

A Chi-square test fails to substantiate a significance in this degree of disparity.

The corollary of the occupational disparity shows itself also in the response to the question about fathers' schooling. Of the Jewish children, 20% report that their fathers have completed, at least, a four-year college education (the other professionals are Rabbis, who have not completed a secular education). Among the Protestants, 60% report that their fathers have completed a four-year college education. The information about the Witkin group, seems to indicate that about 20% of the children fall into this category.

Surprisingly, however, if the children's report may be considered accurate in this regard, over 50% of the Jewish homes contain a library of more than 300 books, while only 35% of the Protestant children make the same report. This may, perhaps, best be understood in the light of the importance placed upon book learning, in the traditional Jewish home. In these homes, the possession of books is often prized above the possession of furniture.

If "culture is learned behavior," in a shtetl community this definition takes on the meaning of "learned from books."¹⁵

In this regard, it is interesting to note the comment of one researcher who found, contrary to the findings of many previous studies, that a chance relationship only, exists between socio-economic status and either verbal or performance intelligence for Jewish preschool children of traditional parentage. He suggests the following:

This may be due to (a) the fact that the Jewish traditional home has approximately the same cultural status at all socio-economic levels or (b) that the families sending their children to the Hebraic Yeshivas have the same cultural traditions and the socio-economic background is a mere artifact in their case.

We may, nevertheless, surmise that apparently, in the Jewish traditional homes studied, the important factors determining to a great extent the child's personality and intellectual traits, are not dependent on socio-economic factors. It further appears that the interest and concern of a parent with a child's progress, knowledge of children's schoolmates, attention to religious upbringing are related to the general traditional Jewish attitudes and have little relation to family income.¹⁶

In view of the above then, the socio-economic status disparity is not a vital factor in this study's findings. Obviously, however, it would be desirable for a follow-up study to determine more specifically, the statistical evidence with regard to this matter.

15. Mark Zborowski in Childhood in Contemporary Cultures, Margaret Mead and Martha Wolfenstein (ed.), p. 133.

16. Boris Levinson, op. cit., p. 100.

CHAPTER IX

MAJOR RESULTS AND IMPLICATIONS OF THE STUDY

The statistical findings of this study confirm the major hypotheses. The consistency of the findings, despite the relatively small size of the sampling groups, demonstrates clearly that a relationship exists between analytical functioning or "field dependence," as defined by Witkin and his associates, and degree of Jewish acculturation. The results indicate that highly acculturated Jewish children tend to be relatively field-dependent when compared with white Anglo-Saxon Protestants. Furthermore, it can be reported, that Jewish children with less Jewish acculturation (e.g., Witkin's normative group) are intermediary between the other two groups with regard to this dimension.

The study confirms, also, Witkin's reported correlations between the Body Adjustment and Embedded Figures Tests and the perceptual subtests of the Wechsler Intelligence Scale for Children, i.e., Block Design, Object Assembly, and Picture Completion. There is evidence, however, that Embedded Figures is better related to these tests than is Body Adjustment. Furthermore, there seems to be a difference between Series "a" and Series "b" of the Body

Adjustment Test with regard to these correlations. As suspected, however, in the Picture Completion Subtest of the Wechsler Intelligence Scale, the Jewish group does not show relative weakness.

This study finds, too, that Verbal Disembedding, as hypothesized, is significantly correlated with the constellation of field-dependence-independence tasks for the Anglo-Saxon Protestant children, but when used with the Jewish children, it shows itself significantly correlated with Object Assembly alone.

One of the surprising findings was the relative weakness on some of the verbal tests of the highly acculturated Jewish sample, when compared with the Jewish children in Witkin's normative group. Some considerations, in this regard, will be discussed later in this chapter.

Specific Findings

The consideration of the findings fall into two main areas: relative strengths and weaknesses of the different culture groups, and intercorrelations between the variables. With regard to the strengths and weaknesses, this study will report the results of the comparison of means and standard deviations by F^1 and t tests. Where data on the Witkin

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1. The reported F scores have been computed for an analysis of the variance of four groups, the three groups reported upon here, i.e., J, W, and P, and a fourth group composed of the W group again plus the non-Jewish children in Witkin's normative sample. In no case, however, are the differences between the

group is not available, t tests only will be reported. In the tables, the significance of the t tests will be reported for two-tailed tests. It will be obvious, however, that a greater level of significance could be reported by the use of a one-tailed test, since in all cases, the hypotheses predicted the direction of the difference.

With regard to the intercorrelations between the variables, the report will be of Pearson or Product-Moment Correlation Coefficients.

The following designations will be used:

Group J = highly acculturated Jewish group

Group W = Jewish population within Witkin's
normative group

Group F = white Anglo-Saxon Protestant group

The sizes of the sample groups are as follows:

Group J, N = 45-50

Group W, N = 25, 26, or 56 (the smaller group
only, took the Intelligence Test)

Group P, N = 29 or 30

Perceptual Tests

The results of the perceptual tests are summarized in Table I. Thus, it can be seen that in each test, the

W group and the total Witkin normative group statistically significant, nor, for the Wechsler Intelligence Scale do they ever exceed 0.66 standard scores. The probability of a chance difference, only, between these two groups is, in every case, greater than 40%.

TABLE I
GROUP MEAN AND STANDARD DEVIATION
PERCEPTUAL TESTS

TEST	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t-SCORE		
					J-W	W-P	J-P
Body Adjustment Test Series "a"	** 6.5808						
Mean		57.380	49.178	37.500	.05	.02	.01
S.D.		17.06	24.01	19.34			
Body Adjustment Test Series "b"	1.6906						
Mean		34.080	28.482	23.266	.20	.30	.05
S.D.		21.45	22.25	17.09			
Body Adjustment Test Combined	** 4.5762						
▲ Mean		.293	-.037	-.445	.10	.10	.01
S.D.		.63	.88	.65			
1/Embedded Figures Test	1.4519						
Mean		.543(10) ⁻³	.590(10) ⁻³	.703(10) ⁻³	.50	.30	.20
S.D.		.32(10) ⁻³	.25(10) ⁻³	.59(10) ⁻³			
Perceptual Index	** 4.3797						
▲ Mean		-.278	.014	.378	.10	.10	.01
S.D.		.52	.52	.98			
*Prob. < .05	**Prob. < .01		▲ reported in Z scores				

J group scores show most field-dependence, the P group scores show least field-dependence, and the W group scores are intermediary between the other two groups. The test results of the Embedded Figures Test fail, however, to achieve significance; though it should be noted, the direction of the results are as predicted:

	<u>J Group</u>	<u>W Group</u>	<u>P Group</u>
Mean Score	1841.6	1694.9	1422.4

Also, the results approach significance when viewed as a one-tail test ($t = 1.40$, probability = .08). As previously stated, the use of a one-tail test is appropriate when, as in this case, the direction of the difference has been stated in the hypothesis. As further consideration it should be noted that at the time of Embedded Figures (and Verbal Disembedding) testing, the J group was somewhat older than the other groups.

	<u>J Group</u>	<u>P Group</u>	<u>W Group</u>
Average age	10 ²	10 ²	9 ¹¹
S.D.	5.1	5.2	2.8

This age difference, too, may account for a better than expected performance for the J group. As Witkin reports,

A major finding of our earlier studies was that young children tend to perceive in a relatively field-dependent fashion, and as they grow older their perception assumes a generally more field-independent form.²

The computations of the results of the Embedded

2. Herman A. Witkin, Psychological Differentiation, p. 7.

Figures Test make use of and report the harmonic (computed from the reciprocals, i.e., $1/EFT$) rather than the arithmetic mean for a number of reasons:

1. When using the arithmetic mean, the importance of any individual score is measured by the size of the score, a high score being relatively more important than a low score. In the case of the harmonic mean, the situation is reversed, a low score is relatively more important than a high score. In this test it was desirable to give relatively less importance to the higher scores to compensate for the fact that the children are stopped after five minutes and assigned the maximum score of 300. Thus, there is no way of knowing how much longer the child might have continued had he not been stopped. Consequently, it is desirable to minimize the effect of the depressed higher scores.

2. "The harmonic mean is used in problems involving the averaging of rates."³ Consequently, since speed tests, generally, involve the averaging of the rates of speed, it is standard procedure to convert the results of the speed tests into reciprocals when comparing them with power tests.

The procedure used for combining scores, both for the Body Adjustment Test and the Perceptual Index, was the

3. Allen L. Edwards, Statistical Methods For the Behavioral Sciences, p. 49.

conversion of each separate score into a z-score distribution,⁴ followed by the addition and averaging of the resultant z-scores. Thus the Body Adjustment Test represents the average of two z-scores, and the Perceptual Index represents the averaging of the new Body Adjustment Test transformed score, reversed with regard to sign,⁵ with the z-scores of the distribution of the reciprocals of the Embedded Figures Test.

Intellectual Perceptual Tests

The results of the perceptual subtests of the Wechsler Intelligence Scale for Children are presented in Table II. Here again, for two of the subtests, Block Design and Object Assembly, the results are clearly accounted for in the hypothesis that the Jewish children will be more field-dependent than the white Anglo-Saxon Protestant children. In fact, in the case of Object Assembly, the mean score of nine attained by the J group, is quite a bit out of line when considered with the other subtests--as see the fact that in no other case did the J group attain a mean score of less than 11, and in one case, they achieved a score as high

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4. Based upon the distribution of all sample scores, i.e., the J and P groups, and the Jewish and non-Jewish Witkin subjects.
 5. The z-scores of the distribution of the transformed BAT is reversed, so that plus scores will represent relative field-independence, as they do in the distribution of the reciprocals of the EFT, and the other measures of field-dependence-independence.

as 14.

The case of Picture Completion merits discussion. As indicated previously, Picture Completion generally factors out with the other two perceptual tests in factor analyses

TABLE II
GROUP MEAN AND STANDARD DEVIATION
PERCEPTUAL SUBTESTS OF THE
WECHSLER INTELLIGENCE SCALE FOR CHILDREN

TEST	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t-SCORE		
					J-W	W-P	J-P
BLOCK DESIGN	2.0729						
MEAN		11.020	11.230	12.533	.80	.20	.05
S.D.		2.90	2.66	3.09			
OBJECT ASSEMBLY	3.7441*						
MEAN		9.000	9.423	11.266	.60	.05	.01
S.D.		2.59	3.20	3.09			
PICTURE COMPLETION	0.2615						
MEAN		11.040	11.461	11.133	.60	.80	.90
S.D.		3.01	3.17	3.15			
INTELLECTUAL INDEX	2.0946						
MEAN		31.060	32.115	34.933	.60	.20	.02
S.D.		6.71	6.63	6.93			
MOD. INTELLECTUAL INDEX	3.5557*						
MEAN		20.020	20.653	23.800	.70	.05	.01
S.D.		4.87	5.23	5.82			

*prob. $< .05$

of the Wechsler Test. In the case of the J group, this study, too, finds significant correlations between Picture Completion and the other perceptual subtests: Block Design, and Object Assembly (.35 and .38 respectively). Nonetheless, there is no relative weakness for the J group in Picture

Completion. In fact, all of the groups appear to be relatively equivalent with regard to this subtest.

This confirms the difference between Picture Completion and the other perceptual tests discussed in the statement of hypotheses. It had been expected that the particular factors involved in the acculturation of the J group might account for field-dependent performance in tests involving, primarily, the manipulation of materials. The Picture Completion subtest does not satisfy this criterion.

This finding sheds additional light, too, on the absence of significance in the results of the Embedded Figures reported upon previously. That test, similarly, requires no manipulation of materials.

The Intellectual Index, a term used in the Witkin literature, is composed of the summation of the standard scores of the three perceptual subtests. The Modified Intellectual Index is composed of the summation of the standard scores of the two manipulative-perceptual subtests.

Attention-Concentration Tests

An interesting, and unanticipated, finding, in this study, is the relative strength of the J group with regard to the subtests factoring out as attention-concentration. In the administration of the full Wechsler Intelligence Scale, Arithmetic, Coding, and Digit-Span usually factor together, containing, seemingly, the common requirement of

careful attention to the tester and his instructions. In this study, the Digit-Span test was not administered. With regard to the balance of these tests, however, it will be evident from Table III that these sample groups differ.

TABLE III

GROUP MEAN AND STANDARD DEVIATION
ATTENTION-CONCENTRATION SUBTESTS OF THE
WECHSLER INTELLIGENCE SCALE FOR CHILDREN

TEST	GR. J	GR. P	SIGNIFICANCE OF t-SCORE
ARITHMETIC			
MEAN	14.340	12.400	.01
S.D.	2.86	2.88	
CODING			
MEAN	13.260	10.933	.01
S.D.	3.01	3.02	
MOD. ATTENTION- CONCENTRATION INDEX			
MEAN	27.600	23.333	.01
S.D.	4.50	4.84	

There is no available data on these tests for the W group. The summation of the two attention-concentration tests administered to the children in this study has been designated as the Modified Attention-Concentration Index.

As a consequence of these findings, it would seem desirable that a future study be designed to test the effect of Hebrew Day School education on the Attention-Concentration subtests of the Wechsler Scale. The traditional form of education in such schools, requires a particularly strong determination to "sit and pay attention."

The Jewish folk expression for a student, "bank kvetcher",⁶ would seem to confirm this style of study as being the mode in traditional schools. Furthermore, Jewish lore holds up to scorn, the student, who in the midst of his master's lecture, notices, even, a raging storm outside in the street.

It seems reasonable to hypothesize relative strength in Attention-Concentration tests, for Hebrew Day School students.

Verbal Tests

Six verbal tests of the Wechsler Intelligence Scale have factored out together in both the Cohen⁷ and Witkin⁸ studies. Cohen identifies two verbal factors which he designates as Verbal Comprehension I and II, composed of Information, Similarities, and Arithmetic on the one hand, and Comprehension, Vocabulary, and Picture Completion on the other (see Table IV). Witkin found all six of these tests factoring out on one verbal factor in his sample of twelve-year-olds. With his ten-year-olds, however, Picture Completion did not provide any substantial loading on this

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6. Literally, "bench squeezer." One who sits all day and pores over the books.
 7. Jacob Cohen, "The Factorial Structure of the WISC at Ages 7-6, 10-6, and 13-6," Journal of Consulting Psychology 23 (1959), pp. 285-299.
 8. Herman A. Witkin, et al., Psychological Differentiation, p. 66.

factor. In the Verbal Index, which he created, however, Witkin did not include all six of these variables. Picture Completion was deleted because it failed to appear in the

TABLE IV
GROUP MEAN AND STANDARD DEVIATION
VERBAL TESTS

TEST	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t-SCORE		
					J-W	W-P	J-P
INFORMATION	6.6764 **						
MEAN		12.520	15.040	13.566			
S.D.		2.52	2.89	2.60	.01	.10	.10
COMPREHENSION	.0567						
MEAN		12.740	12.960	12.966			
S.D.		3.34	3.45	2.54	.80	1.00	.80
SIMILARITIES							
MEAN		13.240		14.433			
S.D.		3.55		3.71			.20
VOCABULARY	4.3732**						
MEAN		12.820	14.500	14.233			
S.D.		2.47	1.99	2.23	.01	.70	.02
VERBAL INDEX	3.4784*						
MEAN		38.080	42.600	40.766			
S.D.		6.37	6.58	6.56	.01	.30	.10
VERBAL COM- PREHENSION I							
MEAN		40.100		40.400			
S.D.		6.25		7.50			.90
VERBAL COM- PREHENSION II	1.2229						
MEAN		36.600	39.040	38.333			
S.D.		6.63	5.48	5.92	.20	.70	.30

**prob. \angle .01

*prob. \angle .05

ten-year-old group, and Arithmetic and Similarities were deleted because of their apparent additional relationship with other factors: Arithmetic with Coding (Attention-Concentration), and Similarities with Body Adjustment and

Embedded Figures (Perceptual Index).⁹

In the analysis of this data, group W is found to be particularly strong in verbal variables, with special strength evident by comparison with group J. These findings are of special interest in view of the fact that both of these groups are composed of Jewish children, who have frequently been identified as particularly verbal. Subhypothesis six had suggested that the Jewish group would be strongest on the verbal subtests. This does appear to be true for the W group, but, in fact, the opposite seems to be true for the J group! While there is no statistical significance in the relative strength of the W group as compared with the P group,¹⁰ there is statistical significance in the relative strength of the W group when compared with the J group in at least two subtests, Vocabulary and Information. (It is regrettable that the comparison data for the W group on Similarities and Arithmetic is lacking.) Furthermore, the relative weakness of the J group in

9. In this study, for the P group only, similar conclusions might be drawn. Arithmetic seems to be additionally related to coding ($r = .32$, not significant), and to the Perceptual tests: BATb, Block Design, and EFT ($r = .38, .46$, and $.41$, all significant), while Similarities is related to BATA, BATb, Object Assembly, Picture Completion, and Coding ($r = .37, .40, .41, .40$, and $.37$, all significant).

A similar conclusion might, however, have been drawn for Vocabulary which, except for Object Assembly, exhibits similar, or better, correlations ($r = .53, .50, .18, .37$, and $.38$).

10. Using a one-tailed test, we find .05 significance in the Information subtest.

Vocabulary when compared with the P group, also achieves statistical significance.

A hypothesis meriting future testing is the expectation that a negative correlation would be found between bilingualism and performance on these subtests. Fifty percent of the J group, it was noted, come from bilingual homes. In addition, all of the children in this group are attending a bilingual (or, more accurately, trilingual: English, Hebrew, and Yiddish) school.

It seems pertinent to cite Levinson¹¹ at this point. He has reported on a comparison of Wechsler Intelligence Scale scores of bilingual and monolingual preschool children of traditional Jewish parentage. The bilingual group is described as weaker in each of the ten subtests of the Wechsler, with the difference in mean scores achieving statistical significance in two subtests: Vocabulary and Picture Arrangement. In addition, from among the remaining subtests, the greatest difference between the monolingual and bilingual children was found in the Information subtest.¹²

In line with the suspicion, then, that the relative weakness of the J group in Information and Vocabulary, may

11. Boris M. Levinson, "A Comparison of the Performance of Bilingual and Monolingual Native Born Jewish Preschool Children of Traditional Parentage on Four Intelligence Tests," Journal of Clinical Psychology 15 (1959), No. 1, pp. 74-76.

12. In Boris M. Levinson, "A Comparative Study of the Verbal and Performance Ability of Monolingual and

be due to the bilingualism of the group, it is interesting to note that the only other subtest in which the P group achieves a score, statistically, significantly higher than the J group is none other than Picture Arrangement, which, similarly, shows up as relatively weak in Levinson's bilingual group.* Note the data:

		<u>Group J</u>	<u>Group P</u>	<u>Difference</u>
Picture Arrangement	Mean	10.880	12.666	1.786 p<.01
	S.D.	2.53	2.42	

Full Scale I.Q.

Despite the fact that examination of subtest scores has revealed consistent cultural differences with regard to some of the sub-abilities that go into the Wechsler Intelligence Scale, the differences between the groups with regard to Full Scale I.Q., as well as with regard to the separate Verbal and Performance I.Q.'s, do not achieve statistical significance (see Table V). This confirms the oft-stated conclusion that, "the complexity of intelligence constitutes a major limitation in all mental testing,"¹³

Bilingual Native Born Jewish Children of Traditional Parentage," Journal of Genetic Psychology, further analysis of this same data shows that these differences are due primarily to the relative weakness of bilingual preschool girls. For the bilingual boys, however, none of these differences is statistically significant, and furthermore, in the Information subtest the bilingual boys scored somewhat higher than the monolingual boys (11.93-11.69; $t = 0.22$).

13. Harold W. Bernard, Human Development in Western Culture, p. 127.

*J group mono and bilingual children compared in Appendix.

for, despite the obvious overall similarity of the various groups with regard to I.Q. scores, differences exist in the components of the I.Q.!

The Full Scale mean I.Q. of the W group is 117 with a standard deviation of ten. As indicated previously, however, this data is for 26 children only. Additional data

TABLE V
GROUP MEAN AND STANDARD DEVIATION
I.Q. SCORES

TEST	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t-SCORE		
					J-W	W-P	J-P
VERBAL I.Q.	.5361						
MEAN		119.620	123.730	121.533	.20	.60	.60
S.D.		12.88	11.09	12.96			
PERFORM- ANCE I.Q.	1.2409						
MEAN		107.300	106.884	111.933	.90	.20	.20
S.D.		12.65	10.44	13.71			
FULL SCALE I.Q.	.6962						
MEAN		115.100	117.192	118.666	.50	.70	.30
S.D.		11.53	9.70	12.65			

is available for most of the balance of the W children (N = 27) on a Stanford-Binet I.Q. test, revealing an average I.Q. of 126 and a standard deviation of 18.5.¹⁴ The difference in I.Q. may not be real, however, and may represent a consequence of the different tests used rather than

14. The difference between this score and the W.I.S.C. scores achieve statistical significance in comparison with the J and W groups.

a real difference between groups. For one reason, bright subjects generally do better on the Stanford-Binet than they do on the Wechsler and, for another, young subjects seem to enjoy an advantage on the Stanford-Binet.¹⁵

An analysis of the magnitude of the difference between Verbal and Performance I.Q. for the various groups is of interest here. The magnitude of the difference is greatest for the W group, and least for the P group. In the comparison of the W and P groups, this difference is statistically significant. The mean difference is reported below:

	<u>J Group</u>	<u>W Group</u>	<u>P Group</u>
mean difference	12.32	16.85	9.60

These findings take on added significance in view of their similarity to Levinson's¹⁶ findings reported upon in Chapter XI.

Sophistication of Body-Concept

Figure Drawing constitutes the last of the variables used also in the Witkin studies. Here, again, the J group is rated as more primitive and global in its representations, and consequently, more field-dependent. As expected, the W group is intermediary between the other two groups.

This test differentiated clearly between the J group and the other groups in the drawings of both male and female

15. Bernard, ibid., p. 125.

16. Boris M. Levinson, "Subcultural Variations in Verbal and Performance Ability at the Elementary School Level," Journal of Genetic Psychology 97 (1960), pp. 149-160.

figures (see Table VI). Composite ratings were formed by averaging the ratings of the male and female drawings, if they were scored two points apart. When they were more than two points apart, the higher rating was used for the composite score. It seemed reasonable to assume that when

TABLE VI
GROUP MEAN AND STANDARD DEVIATION
FIGURE DRAWINGS

TEST	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t-SCORE		
					J-W	W-P	J-P
FIGURE DRAWING (M)	** 7.2246						
MEAN		3.640	5.538	6.233			
S.D.		2.64	2.99	2.23	.01	.40	.01
FIGURE DRAWING (F)	** 7.7156						
MEAN		3.680	5.384	6.200			
S.D.		2.45	2.65	2.24	.01	.30	.01
COMPRE- HENSIVE RATING (M + F)	** 7.8084						
MEAN		3.760	5.653	6.300			
S.D.		2.45	2.82	2.21	.01	.40	.01

**prob. $< .01$

a child's drawings show so much difference, the better representation is likely presenting a more accurate estimate of the sophistication of his body-concept. The poorer representation may more reasonably be attributed to an identification problem with one or the other of the child's parental models. Where the ratings were one point apart,

the higher rating was used as the best estimate of the level of sophistication of the child's body-concept.

The number and percentages of children in each group for whom there were split ratings are as follows:

	<u>% of sample</u>	<u>1 point apart</u>	<u>2 points apart</u>	<u>more than 2</u>
J Group	28%	6	7	1
W Group	23%	5	2	0
P Group	31%	3	3	2

Verbal Disembedding Test

In the case of the Verbal Disembedding Test, the hypothesis was that the J group would be more analytical. Consequently, it was expected that they would disembed faster. Though the difference between the groups is in the expected direction, i.e., the J group disembeds faster, the results of this test are not conclusive and fail to substantiate the hypothesis.

	<u>J Group</u>	<u>P Group</u>
VERBAL DISEMBEDDING TEST		
MEAN	139.1	149.0
S.D.	37.5	45.2

Statistical analysis of these results fails to substantiate the significance of the findings. Nonetheless, the results appear to merit careful consideration in view of the relative weakness which the J group showed in both verbal and perceptual tasks. In an earlier pilot study¹⁷

17. Which used a polyethnic group of children of varying abilities attending a New York City public school.

of the Verbal Disembedding Test, it was found that the test correlates significantly with both Embedded Figures and the Vocabulary subtest of the Wechsler Intelligence Scale. In this study, as indicated previously, the J group is significantly lower than the P group in both of these areas. Consequently, if cultural factors were insignificant in this test, it would be expected that the J group would do more poorly here than the W group. The fact that this has not happened, and in fact the reverse has occurred, i.e., the W group has done more poorly, lends credence to the contention that for the J group, field-dependence does not extend to verbal matters. The cultural factors affecting the J group's performance on field-dependence-independence tasks may have an opposite effect in verbal areas.

A complication here, however, is the fact that the construction of this test was not completed until most of the J group had already gone through the balance of the testing. Consequently, at the time of this testing, the average age of the J group was seven months more than the average age of the P group. Age may be a factor in the relative strength of the J group on this test, so that the dual effects of poor performance on Vocabulary and Embedded Figures may be cancelled out.¹⁸

18. A subsequent test of a second group of thirty children similar in culture to the J group but, on the average, 11.4 months younger, yielded a mean VDT score of approximately 168 and a standard deviation of approximately 65. There is no statistical

To test the effect of vocabulary in the Verbal Disembedding Test, 18 J and 18 P children were matched for Vocabulary and compared for the difference between the mean scores of their performance on the Verbal Disembedding Test. A t-score of 1.49 was found here. This represented a probability of .10, not significant, but additional movement in the expected direction.

In all of the computations dealing with the Verbal Disembedding Test, the harmonic mean was used for the reasons indicated above in the discussion of the Embedded Figures Test and for an additional cogent reason. In the administration of this test, the subjects are directed to "try again" if they select the incorrect words. This instruction is continued until the correct word is selected. Thus all subjects, eventually, complete all of the items correctly.¹⁹ Under such circumstances, this test is comparable to a miles per hour situation where the numerator is kept constant (a constant number of correct answers) and the denominator may vary (a varying speed for each of the subjects). The harmonic mean is appropriate under such circumstances.²⁰

significance in the difference between this group and the W group ($t = 1.48$). The difference between this group and the J group is significant ($p < .05$). We have, however, no data on the verbal ability or field-dependence of this second group.

19. The children are stopped after 99 seconds, but this was necessary only twice in all of the testing, and is in this regard relatively unimportant.

20. Samuel B. Richmond, Statistical Analysis, p. 80.

The Effect of Combining Indices

It has been observed that the J and P groups differ from one another in three different types of tasks, each identified by Witkin as being related to field-dependence-independence, i.e., the Perceptual Index, the Intellectual Index, and Figure Drawing. Furthermore, it was reported, that Picture Completion appears to be unaffected by cultural factors. Consequently, a Modified Intellectual Index was introduced in this study, to replace Witkin's Intellectual Index.

If, in fact, the several tests which go into these indices are strongly affected by field-dependence-independence factors, then the combination of these tests, or variables, into a single weighted score should enhance the reliability of the difference between the experimental groups. In fact, we find this to be the case! Giving equal weight to each of the indices and generating new scores for each of the subjects, increases the difference between the J and P groups. Additionally, it produces statistical significance in the difference between the W group and each of the other groups (see Table VII).

Thus, it can readily be seen, that the cumulative effect of the five variables: Body Adjustment Test, Embedded Figures Test, Block Design, Object Assembly, and Figure Drawing, produces the greatest mean difference between the groups and the highest F score. The effect of adding Picture Completion to this array of variables,

i.e., the inclusion of the Intellectual rather than the Modified Intellectual Index, decreases the difference between the J and P groups, while increasing, somewhat, the difference between the J and W groups.

TABLE VII
GROUP MEAN AND STANDARD DEVIATION
COMBINED INDICES

COMBINATION	F SCORE	GR. J	GR. W	GR. P	SIGNIFICANCE OF t -SCORE		
					J-W	W-P	J-P
PERCEPTUAL AND INTELLECTUAL	** 4.1228						
MEAN		19.394	20.683	22.814			
S.D.		4.05	3.72	4.76	.20	.10	.01
PERCEPTUAL AND MOD. INTELLECTUAL	** 4.8331						
MEAN		19.053	20.305	23.015			
S.D.		4.24	3.90	5.42	.30	.05	.01
PERCEPTUAL, INTELLECTUAL, FIGURE DRAWING	** 7.6979						
MEAN		27.797	31.412	34.331			
S.D.		5.66	5.93	5.64	.02	.10	.01
PERCEPTUAL, MOD. INTEL- LECTUAL, FIGURE DRAWING	** 8.0399						
MEAN		27.457	31.034	34.532			
S.D.		5.87	6.08	6.26	.05	.05	.01

** / .01

When considering the three prime indices (Perceptual Index, Modified Intellectual Index, and Figure Drawing), then, as a measure of field-dependence, it may be concluded that the J and P groups are significantly different from one

another ($t = 4.57$, prob. $<.001$), and the W group, intermediary between the other two groups, is also significantly different from each of them.

The addition of the Verbal Disembedding Test to the index does not increase the difference between the groups because the J group is strongest in this test, but the difference still remains significant at the .01 level. As will be seen from the subsequent discussion of correlations, however, the Verbal Disembedding Test does remain part of the constellation of field-dependence-independence, but only for the P group, as hypothesized.

Substantiation of the Hypotheses

In conclusion, therefore, it may be stated that this study has substantiated all of its major hypotheses, and a number of the sub-hypotheses.

Sub-hypotheses three, four and five relate to the Perceptual and Intellectual Indices, and Human Figure Drawings:

Sub-Hypothesis 3. Ability to overcome embeddedness within a perceptual field is negatively related to Jewish acculturation.

Sub-Hypothesis 4. Performance on the intellectual-perceptual subtests of the Wechsler Intelligence Scale for Children (Block Design, Object Assembly, and Picture Completion) is negatively related to Jewish acculturation.

Sub-Hypothesis 5. Sophistication of the body-concept, as determined by human figure drawings, is

negatively related to Jewish acculturation.

As the data indicate, in each of these areas, high scores are negatively related to Jewish acculturation. As was suspected, however, Picture Completion did not follow the other Intellectual-Perceptual tasks.

Sub-hypothesis one, standing on the rejection of the null hypothesis for sub-hypotheses three, four and five, is therefore considered confirmed:

Sub-Hypothesis 1. Performance on tasks requiring the use of the body or sensory modalities in an analytical manner, is negatively related to Jewish acculturation.

Sub-hypotheses 6 and 7 predict relative strength for the Jewish group in verbal tests:

Sub-Hypothesis 6. Performance on verbal subtests of the Wechsler Intelligence Scale for Children is positively related to Jewish acculturation.

Sub-Hypothesis 7. Performance on tests involving verbal disembedding is positively related to Jewish acculturation.

Sub-hypotheses six and seven are not confirmed. Thus, while there seems to be some evidence that Jewish acculturation is positively related to the verbal subtests of the Wechsler Intelligence Scale for Children (at least for the monolingual Jewish children in Witkin's normative group), and, furthermore, Jewish acculturation seems also to be positively related to Verbal Disembedding, nonetheless,

the null hypotheses cannot be rejected!

Consequently, sub-hypothesis two, predicting strength of performance for the Jewish children in these verbal areas, is considered not confirmed:

Sub-Hypothesis 2. Performance on tasks requiring the use of verbal or intellectual competencies, is positively related to Jewish acculturation.

Sub-hypothesis 8 predicts that the Witkin normative group will be intermediary between the two experimental groups:

Sub-Hypothesis 8. Performance of the Jewish children in the Witkin normative group, in the areas tested by sub-hypotheses 3, 4, 5, and 6, will be intermediary between the performance of the two experimental groups.

Sub-hypothesis eight is confirmed for the constellation of field-dependence-independence tasks covered by sub-hypotheses three, four and five, but is not confirmed for the verbal subtests covered by sub-hypothesis six. This hypothesis, then, is considered partially confirmed.

The major hypotheses were dependent upon the confirmation of sub-hypotheses one, two and eight. Two of the sub-hypotheses, then, having been substantiated--except for one area of sub-hypothesis eight--permit the inference that the major hypotheses are considered tenable. Thus, we may restate, in more specific terms, the major hypotheses, as confirmed by this study:

1. The patterns involved in the field-dependence-independence continuum are the product of the specific cultural values inherent in white Anglo-Saxon Protestant Americans, identified as the carriers of American "core-culture."

2. With regard to the style of cognition known as field-dependence, ten-year-old boys exposed to intense Jewish acculturation performed differently from their neighbors in the white Anglo-Saxon Protestant community.

3. The magnitude of this difference is related to the intensity of the Jewish acculturation as determined by type of schooling and degree of traditional Jewish observance in the home.

Further consideration with regard to the first of these three statements will be evaluated in the following chapter.

CHAPTER X
ANALYSIS OF CORRELATIONS

The self-consistencies involved in field-dependence are contained in two main constellations of variables: those related to perceptual functioning, and those related to intellectual activities. Within clusters his Body Adjustment Test, Rod and Frame Test, and Embedded Figures Test under one grouping, and the three perceptual subtests of the Wechsler Intelligence Scale for Children, under a second grouping. It seems important, then, for this data to be analyzed for the correlations between the various measures. A factor analysis of the data might have been attempted, but certain children having missed a test or two, posed a problem of missing data. This, then, compounded the statistical problems involved in such an analysis, and the advice of William Siler, Associate Director of the Computer Center of the Downstate Medical Center, was followed. Consequently, the attempt to factor analyze the data was abandoned.

What will be reported then will be Pearson product-moment correlations. The significance of a Pearson "r" is dependent upon the number of subjects involved in the correlation. Thus for these samples, which vary in size,

similar correlations will not indicate similar significance.

The Jewish group varied in size from 46 to 50. For $N - 2$ degrees of freedom, a significance level of .05 is achieved with an "r" higher than .291, and a significance level of .01 for an "r" higher than .376.

The white Anglo-Saxon Protestant group varied in size from 29 to 30. For $N - 2$ degrees of freedom, a significance level of .05 is achieved with an "r" higher than .367, and a significance level of .01 is achieved with an "r" higher than .471.

The Witkin Jewish sample varied in size. For the perceptual tests the N was 56, while for the Wechsler test, the N was 26. For $N - 2$ degrees of freedom, a significance level of .05 is achieved in the perceptual tests with an "r" higher than .263 and in the intellectual tests with an "r" higher than .388, while for a .01 level, the values for "r" are .342 and .496, respectively.

The "r's" will be reported for two-tailed tests, though, obviously, for all of these correlations, a one-tailed test could have been used since the direction of the correlation was predicted.

Perceptual Index

The Perceptual Index is composed of Body Adjustment "a", Body Adjustment "b", and Embedded Figures. As Table VIII shows, the correlation between series "a" and series "b" is significant for all three groups. For the

J group, however, it is quite a bit lower than for each of the other groups. This is an interesting finding, and is consistent with the fact for the J group, as will be shown, series "a" is almost consistently better correlated with other measures of field-dependence than is series "b". This is not true for the other groups.

TABLE VIII
CORRELATIONS BETWEEN VARIABLES OF THE
PERCEPTUAL INDEX

CORRELATED VARIABLES	GROUP J	GROUP W	GROUP P
Body Adjustment, Series "a" vs. Body Adjustment, Series "b"	.50**	.65**	.71**
Body Adjustment, Series "a" vs. Embedded Figures Test	.37**	.21	.20
Body Adjustment, Series "b" vs. Embedded Figures Test	.28	.40**	.25

**sig. at .01 level

In the correlations with Embedded Figures, we find significance in the correlation of the J group for series "a", and significance for the W group in series "b". For the P group, neither correlation is significant, but the correlation with series "b" is higher.

Intellectual Index

The Intellectual Index is composed of subtests of the Wechsler Intelligence Scale for Children. These subtests have been shown to factor out with the perceptual tests

mentioned in the above section.

As can be seen from Table IX, Block Design and Object Assembly correlate quite well with one another, while the other correlations are significant for the J group only. An interesting thing to ponder here, is the relatively high correlation with Picture Completion for the J group, despite the fact that the weaknesses evident in this group in Block Design and Object Assembly did not appear in this

TABLE IX
CORRELATIONS BETWEEN VARIABLES OF THE
INTELLECTUAL INDEX

CORRELATED VARIABLES	GROUP J	GROUP W	GROUP P
Block Design vs. Object Assembly	.56**	.58**	.64**
Block Design vs. Picture Completion	.35**	.14	.03
Object Assembly vs. Picture Completion	.38**	.17	.27

**sig. at .01 level

test. The evidence, then, seems to point to the fact that while culture may be a factor in the weakness of the J group in Block Design and Object Assembly, individual children maintain a consistent pattern of relative strengths and weaknesses across the three tests together.

The extremely low correlations between Block Design and Picture Completion for the P and W groups merit further study.

Correlations Between Intellectual and Perceptual Tests

It will be noted in Table X that Body Adjustment series "b" is better correlated with each of the intellectual subtests for groups P and W. For the J group, however, while the correlations are very similar for two of the subtests, Block Design is significantly correlated with series "a" alone.

Embedded Figures, it seems obvious, is highly correlated with these intellectual tests, except that again, Picture Completion stands out for its poor correlation with this test for the P group.

As we have seen, then, Picture Completion, at least for the P group, shows no correlation with Block Design, Body Adjustment series "a", and Embedded Figures. It seems quite obvious, then, that were a factor analysis generated on this data, Picture Completion, for the P group, would not factor out with the field-dependence tasks.

The combination of variables into Indices seems to confirm the fact that the tests go together. The highest correlations are achieved when variables are combined. If these variables were relatively independent of one another, the combination of them would tend to neutralize

TABLE X
CORRELATIONS BETWEEN VARIABLES OF THE
INTELLECTUAL INDEX VS. PERCEPTUAL INDEX

CORRELATED VARIABLES	GROUP J	GROUP W	GROUP P
Body Adjustment, Series "a" vs. Block Design	.50**	.05	.19
Body Adjustment, Series "a" vs. Picture Completion	.24	.25	.09
Body Adjustment, Series "a" vs. Object Assembly	.30*	.00	.14
Body Adjustment, Series "b" vs. Block Design	.23	.47*	.46*
Body Adjustment, Series "b" vs. Picture Completion	.27	.52**	.22
Body Adjustment, Series "b" vs. Object Assembly	.30*	.21	.28
Embedded Figures Test vs. Block Design	.58**	.70**	.69**
Embedded Figures Test vs. Picture Completion	.36*	.39*	.03
Embedded Figures Test vs. Object Assembly	.53**	.54**	.60**
Perceptual Index vs. Modified Intellectual Index	.65**	.46*	.70**
Perceptual Index vs. Intellectual Index	.65**	.60**	.60**

*sig. at .05 level

**sig. at .01 level

and negate any correlation that individual variables may have with one another.

It is interesting to note the effect, again, of Picture Completion on the P group. Its inclusion in the Intellectual Index tends to lower the correlation with Perceptual Index from .70 to .60.

Partial Correlation Coefficients

One of the strong criticisms of Witkin's work was voiced by Zigler who claimed that

. . . the empirical relationships found between field-dependence measures and many of the scores employed by Witkin are due to the common relationship between all of these scores and general intelligence as defined by standard intelligence tests.¹

One technique used for eliminating the effect of a third variable on any reported correlation, is to partial out the effect of that third variable. A first order partial correlation coefficient, therefore, was generated on a number of the reported correlations. Obviously, where the initial correlation is insignificant, any further reduction of the correlation through partialing out the effect of a third variable is gratuitous. In this first set of Partial correlations (Table XI), all of the initial correlations were significant.

It becomes important to question what should be

1. Edward Zigler, "Psychological Differentiation by Witkin et al. Reviewed," Contemporary Psychology 8 (April 1963), p. 134.

partialled out. In dealing with the Modified Intellectual Index, or with the Intellectual Index, we are dealing with

TABLE XI
PARTIAL CORRELATIONS BETWEEN VARIABLES
PERCEPTUAL INDEX

CORRELATED VARIABLES	PARTIALING OUT	GROUP J	GROUP W	GROUP P
Perceptual Index vs. Intellectual Index	Full Scale I.Q.	.43**	.49**	.39*
Perceptual Index vs. Modified Intellectual Index	Full Scale I.Q.	.47**	.25	.57**
Perceptual Index vs. Intellectual Index	Verbal Comprehension 1	.59**	--	.46*
Perceptual Index vs. Modified Intellectual Index	Verbal Comprehension 2	.61**	.44*	.69**
Perceptual Index vs. Intellectual Index	Verbal Index	.62**	.59**	.57**
Perceptual Index vs. Modified Intellectual Index	Verbal Index	.63**	.45*	.69**

*sig. at .05 level

**sig. at .01 level

two or three of the Wechsler subtests. Accordingly, the correlations of Full Scale I.Q. with these indices is contaminated by the effect of the addition of the subtests to

the determination of I.Q. A better measure then, for our purposes, is Cohen's Verbal Comprehension 1 and 2, and Witkin's Verbal Index.

Of the two Verbal Comprehension factors, Factor 2, containing Vocabulary, Comprehension, and Picture Completion, appears to be the better measure of general intelligence, because Vocabulary is generally considered to be the one best test of intelligence. In this test, though, for the P group, we do not find it so:

	<u>Group J</u>	<u>Group W</u>	<u>Group P</u>
Verbal Comprehension 1 vs. Full Scale I.Q.	r = .78	--	.90
Verbal Comprehension 2 vs. Full Scale I.Q.	r = .81	.48	.77

Furthermore, Verbal Comprehension 1 contains Arithmetic, which seems, at least additionally, to be present on the factor Attention-Concentration. Therefore, where possible, i.e., when dealing with the Modified Intellectual Index, the first order partial correlations will report on the partialing out of Verbal Comprehension 2. When dealing with the Intellectual Index, however, which is partially composed of one of the tests in Verbal Comprehension 2 (Picture Completion), Verbal Comprehension 1 containing Information, Similarities, and Arithmetic, will be partialled out.

Witkin's Verbal Index (Information, Comprehension and Vocabulary) may, however, be the best of the factors to

partial out, when attempting to separate verbal from perceptual intellectual skills. The correlations for the Verbal Index with Full Scale I.Q. are reported below:

<u>Group J</u>	<u>Group W</u>	<u>Group P</u>
.76	.64	.84

It will be noted from Table XI, that the partialing out of the verbal factors--even the contaminated Full Scale I.Q.--leaves significant correlations, proving that the correlations between perceptual tasks and perceptual intellectual tasks cannot be accounted for on the basis of the "common relationship between all of these scores and general intelligence as defined by standard intelligence tests," discounting Zigler's criticism of Witkin's work.*

Figure Drawings

Table XII reports the correlations between Figure Drawings and the other tests of field-dependence. For the P group, Figure Drawings do not correlate significantly with the perceptual indices (see correlation with BAT, page 200).

Thus, Figure Drawings and Picture Completion, for the P group, appear to contribute little to the constellation of field-dependence tasks. The results of the W and J groups, however, confirm all of Witkin's reported correlations.

*An analysis of the co-variance of this data is in Appendix C, on page 199.

Verbal Disembedding Test

The Verbal Disembedding Test is an original measure devised by the author for this study. While it is certain that this test can be improved, based upon the findings of this and subsequent studies, we will, in its present form,

TABLE XII
CORRELATIONS BETWEEN VARIABLES
FIGURE DRAWINGS

CORRELATED VARIABLES	GROUP J	GROUP W	GROUP P
Figure Drawings vs. Perceptual Index	.38**	.48*	.20
Figure Drawings vs. Intellectual Index	.38**	.52**	.12
Figure Drawings vs. Modified Intellectual Index	.41**	.47*	.13

*sig. at .05 level

**sig. at .01 level

consider two questions: (1) Is verbal disembedding, as measured by this test, related to field-dependence; and (2) do the cultural factors involved in Jewish acculturation, which we have found to be related to a disposition towards the field-dependence extremity of the field-dependence-independence continuum, operate in the similar direction in verbal tasks?

It was stated in sub-hypothesis 7, that the Jewish group was expected to excel in verbal disembedding. It was

found that the null hypothesis could not be rejected on the basis of the strength of performance of the Jewish group.

However, since the Verbal Disembedding Test correlates well, for the P group, with field-dependence measures, and poorly, or not at all, for the J group, it is tenable to consider culture as the intervening variable. Thus, Jewish culture may mitigate against field-independence in perceptual and manipulative tasks, predisposing its adherents towards relative field-dependence in these areas--while, at the same time, predisposing them to field-independence, or analytical functioning, in verbal tasks. This may account for the present findings, where (1) the J group is weakest in field-dependence tasks, (2) verbal disembedding is found to be well correlated with field-dependence for the P group, (3) the J group is found to be strongest in verbal disembedding (though poorest in verbal ability), and (4) verbal disembedding is found to be poorly correlated, if at all, with field-dependence tasks for the J group. Table XIII illustrates this finding.

For the J group, Verbal Disembedding is related most of all to Attention-Concentration. For the P group, it is related, significantly, to all the measures of field-dependence, except Figure Drawing, which we found was not related to field-dependence for the P group in any event. When we combine all of the field-dependence tasks into one variable, we find the P group's performance on Verbal Disembedding correlating with it .50, while the correlation

TABLE XIII
CORRELATIONS BETWEEN VARIABLES
VERBAL DISEMBEDDING TEST

CORRELATED VARIABLES	GROUP J	GROUP P
Verbal Disembedding Test vs. Block Design	-.04	.37*
Verbal Disembedding Test vs. Picture Completion	.11	.40*
Verbal Disembedding Test vs. Object Assembly	.28	.59**
Verbal Disembedding Test vs. Embedded Figures Test	.04	.38*
Verbal Disembedding Test vs. Figure Drawing	.06	.19
Verbal Disembedding Test vs. Perceptual Index	.12	.38*
Verbal Disembedding Test vs. Modified Intellectual Index	.12	.53**
Verbal Disembedding Test vs. Intellectual Index	.14	.59**
Verbal Disembedding Test vs. Attention-Concentration	.45**	.36*
Verbal Disembedding Test vs. Combined Perceptual Index, Modified Intellectual Index and Figure Drawing	.12	.50**

*sig. at .05 level

**sig. at .01 level

coefficient for the J group is only .12.

To eliminate the effect of verbal ability on performance on the Verbal Disembedding Test, the reported correlations were reduced by first order partial correlation coefficients. The results are reported in Table XIV.

Thus it is evident, that even after partialing out the effect of verbal competence, a significant correlation remains.

In conclusion, then, it appears that this study has confirmed the validity of the constellation of tasks reported by Witkin as constituting the self-consistent measures of field-dependence, though some question remains about Picture Completion and Figure Drawing.

Further, the study validates the Verbal Disembedding Test as a measure of field-dependence for core-culture Americans.

TABLE XIV
 PARTIAL CORRELATIONS BETWEEN VARIABLES
 VERBAL DISEMBEDDING TEST

CORRELATED VARIABLES	PARTIALING OUT	GROUP P
Verbal Disembedding vs. Embedding Figures	Vocabulary	.35
Verbal Disembedding vs. Intellectual Index	Full Scale I.Q.	.18
Verbal Disembedding vs. Modified Intellectual Index	Full Scale I.Q.	.18
Verbal Disembedding vs. Modified Intellectual Index	Verbal Comprehension 2	.52**
Verbal Disembedding vs. Intellectual Index	Verbal Comprehension 1	.38*
Verbal Disembedding vs. Perceptual Index	Verbal Index	.32
Verbal Disembedding vs. Modified Intellectual Index	Verbal Index	.50**
Verbal Disembedding vs. Intellectual Index	Verbal Index	.52**

*sig. at .05 level

**sig. at .01 level

CHAPTER XI
RELATED STUDIES

A number of relevant studies have already been cited at appropriate places throughout the text of this document. In the area of cognitive styles, Herman A. Witkin, Riley Gardner, and George S. Klein are in the forefront of those who are devoting their talents to research in these areas. Excerpts from their works have been cited to indicate the existence of individual consistencies in style of cognition. Readers are referred to the Bibliography for books and articles by these authors which include substantial bibliographical listings of other related studies. Among the research centers devoting substantial time and effort to the investigation of cognitive style are Downstate Medical Center, Menninger Clinic, New York, Harvard, Wayne State, and Clark Universities.

In addition to these researchers, Else Frenkel-Brunswick¹ and others have worked with "tolerance for ambiguity" which, in her opinion, may encompass individual consistencies in perception and comparable social situations involving ambivalence towards individuals and the like, as

1. Else Frenkel-Brunswick, "Intolerance of Ambiguity as an Emotional and Perceptual Personality Variable," *Journal of Personality*, 1950, 18, pp. 108-143.

well as in perceptual situations.

She writes:

Our material gives evidence of individual differences both in emotional ambivalence and the readiness to face it, and in the more cognitive recognition of traits of conflicting value in others.²

The subtle but profound distortion of reality in the course of the elimination of ambiguities is precipitated by the fact that stereotypical categorizations can never do justice to all the aspects of reality.³

Donald M. Broverman⁴ has done work on "conceptual versus perceptual-motor dominance," and "strong versus weak automatization."

Jerome S. Bruner's⁵ work is on developmental trends in cognitive growth, which he relates in part to Jean Piaget's⁶ work. Bruner follows the growth pattern of children, from "enactive representation" involving motor tasks, through "iconic representation" involving percepts and images, to "symbolic representation" involving language. Of great interest is his finding that children whose language is confounded, who say, for example:

2. Ibid., p. 115.

3. Ibid., p. 135.

4. Donald M. Broverman, "Cognitive Style and Intra-Individual Variation in Abilities," Journal of Personality, 1960, 28, 240-256.

5. Jerome S. Bruner, "The Course of Cognitive Growth," American Psychologist, 1964, 19, pp. 1-15.

6. John H. Flavell, The Developmental Psychology of Jean Piaget.

"That one is tall, and that one is little," where a dimensional term is used for one end of the continuum and a global term for the other.⁷

were twice as likely to fail in reconstructing a transposed matrix, as were children whose language usage was clear, either dimensional (tall, short), or global (big, little).

Body Image

Numerous attempts have been made to devise scales using children's figure-drawings as a gauge of diverse things. In the literature, we find "the usage of the term body-image overlaps with such terms as ego, self, and self-concept."⁸

Goodenough⁹ has devised an intelligence scale based upon the figure drawings. Machover¹⁰ attempted to standardize a scoring method for the drawings with regard to personality attributes, but did not succeed. Nevertheless, she and other psychologists find great value in the clinical use of figure drawings.

7. Bruner, op. cit., p. 5.

8. Edith S. Gasser, "An Investigation of the Body Image of Boys as Expressed in Self Drawings." Unpublished Doctoral Dissertation, New York University, 1961, p. 24.

9. Florence L. Goodenough, Measurement of Intelligence by Drawings.

10. Karen Machover, Personality Projection in the Drawing of the Human Figure.

Cleveland and Fisher¹¹ use a "Barrier Scale," which they find correlated with a dedication to getting ahead and establishing oneself as an independent person, well-differentiated from others.

Their Barrier Scale uses "firm, clearly defined boundaries," as the criterion for a high Barrier score. It is interesting to note their description of Low Barrier people and compare it with some of the concepts put forth about the Jewish children in this study, since in our study, it appears that the highly acculturated Jewish group would score low on the Barrier Scale.

The Low Barrier people are described as tradition-controlled, inconsiderate of the feelings of others, passively waiting for leadership to emerge, non-spontaneous, and prone to put emphasis upon rules.

Park's definition of the "marginal man," of which he considers the Diaspora Jew to be prototypical, seems to be in contradiction:

The fate which condemns him to live, at the same time, in two worlds is the same which compels him to assume, in relation to the worlds in which he lives, the role of a cosmopolitan and a stranger. Inevitably he becomes, relatively to his cultural milieu, the individual with the wider horizon, the keener intelligence, the more detached and rational

11. Sydney Cleveland and Seymour Fisher, "Prediction of Small Group Behavior From a Body Image Schema," Human Relations, 1957, 10, pp. 223-233.

viewpoint. The marginal man is always the more civilized human being.¹²

Cross-Cultural Investigations

Attempts to study cognitive style in different cultural groups is a more recent development of the trend begun during an earlier period when

Between the early thirties and late forties "culture and personality" emerged and grew as a field of interest in anthropology to such an extent that it assumed the proportions of a fad.¹³

As David French puts it:

The relationship between cultural categories and cognitive categorization is not difficult to demonstrate. The relationship between culture and perception is another matter . . . The crucial question is: Do people with differing cultures actually perceive differently? . . . the Torres Straits expedition, and especially Hallowell's work make one kind of case for real differences in perception.¹⁴

The investigations which were cited in Chapter I did, in fact, succeed in demonstrating cultural differences in cognition. Results of an attempt by Donald Michael¹⁵ to test the Gestalt principle of "closure" were not

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12. Robert E. Park, Introduction to Everett V. Stonequist, The Marginal Man, p. xvii.
 13. George and Louise Spindler, "Psychology in Anthropology: Applications to Culture Change," Sigmund Koch (ed.), Psychology: A Study of a Science, p. 511.
 14. David French, "The Relationship of Anthropology to Studies in Perception and Cognition," ibid., p. 406.
 15. Donald Michael, "A Cross-Cultural Investigation of Closure," Journal of Abnormal and Social Psychology 48:No. 2 (1953), pp. 225-230.

significant, and the attempt by Edith Gasser¹⁶ to demonstrate such differences in figure drawings was also unsuccessful.

Bilingualism

Bilingual children are generally considered to be handicapped in language. Though Anderson reports that

In general, the studies of bilingualism show that a child who learns two languages simultaneously in early childhood does not acquire either language quite so well as he would have acquired a single language, but that if the two languages are considered together he learns more language . . .¹⁷

Natalie Darcy¹⁸ in a review of the literature, finds the weight of evidence on the side of less proficiency for bilingual children. Interestingly, one of the very few studies that she cites showing superiority for bilinguals, contained a very large sample of Jewish children.

Sproel¹⁹ reports that bilingual children seem also to have more adjustment problems. In some cases the problems seem to be deep-lying maladjustment at home, while in other

16. Edith Gasser, op. cit.

17. John E. Anderson, The Psychology of Development and Personal Adjustment, p. 169.

18. Natalie Darcy, "A Review of the Literature on the Effects of Bilingualism Upon the Measurement of Intelligence," Journal of Genetic Psychology 82 (1953), pp. 21-57.

19. D.J. Sproel, "Bilinguality and Emotional Adjustment," Journal of Abnormal and Social Psychology 38 (1943), pp. 37-57.

cases, the problem seems to center around a feeling of social inferiority. However, Arsenian²⁰ reports that a child's mental growth and ability to cope with the work at school do not seem to be seriously affected by bilingualism.

Smith's²¹ studies in Hawaii indicate that the type of bilingual situation will be reflected in language. Where the parents were bilingual and inconsistent in their use of either language, the child became confused, and was somewhat retarded in his language development. Where, however, the parents were careful to speak one language at a time in the child's presence, or where a single language was associated with a single parent, there seemed to be no interference with language development.

Religious Attitude and Adjustment

In the area of personal relations, a study done at De Pauw University,²² indicates that believers are more sociable than non-believers. On the other hand, Brown and Lowe reported that female believers have better family

20. S. Arsenian, Bilingualism and Mental Development.

21. Madorah E. Smith, "Some Light on the Problem of Bilingualism as Found From a Study of the Progress in Mastery of English Among Preschool Children of Non-American Ancestry in Hawaii," Genetic Psychological Monograph 21 (1939), pp. 121-284.

22. Reported by Joan C. Wright, "Personal Adjustment and Its Relationship to Religious etc.," Religious Education 54 (1959), pp. 521-523.

relations, better morale, and better social adjustment.²³ Male believers are also reported, in this same study, as having better morale, while non-believers were portrayed as having a tendency towards pessimism, worry, and introversion.

Of most significance for this study is the conclusion of Dreger,²⁴ Willoughby, Woodward, and Symington²⁵ that believers have a greater need for dependency.

Broen²⁶ reports a tendency among believers towards paranoia.

It might be pertinent to investigate the possibility that people who are believers have a need to relate themselves to their own group of co-believers, and thus would score more "sociable".

Differences Between Jewish and Other Groups

Sanua reports:

During the past two decades, about twelve studies have appeared in psychological journals reporting on the emotional differences of Jews and non-Jews, based on use of

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23. Daniel G. Brown and Warner L. Lowe, "Religious Beliefs and Personality, etc.," Journal of Social Psychology 33 (1951), pp. 103-129.
24. Ralph M. Dreger, "Some Personality Correlates of Religious, etc.," Psychological Monographs 66:No. 3 (1952), pp. 1-18.
25. Reported by Dreger, ibid.
26. William E. Broen, "Personality Correlates of Certain Religious, etc.," Journal of Consulting Psychology 19 (1955), p. 64.

personality inventories. The findings of many of these endeavors are regarded as inconclusive and sometimes even contradictory.²⁷

Two studies by Sukow and Williamson²⁸ are cited as an example of this lack of conclusiveness. In one study, Jewish students are reported as on the average having a more marked tendency towards maladjustment, and in a second study it was found that no significant differences between Jewish and non-Jewish students exist. The differences between the two sets of results may be a by-product of the use of different inventories.

Stonequist²⁹ and Lewin³⁰ have described Jews as "marginal people," equally uncertain about belonging to the group that they are entering or seeking to enter, as they are uncertain about belonging to the group they are leaving or seeking to leave.

Stonequist writes:

. . . the modern Jew is likewise a cultural hybrid: half he is derived from the traditional Hebrew culture, half he is molded by Western culture in one of its national forms. Always on the move he appears in each country as an immigrant . . . He is quick to adjust himself to his environment but slow to sink

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27. Victor D. Sanua in M.K. Opler (ed.), Culture and Mental Health, p. 444.
28. M. Sukow and E.G. Williamson, "Personality Traits and Attitudes of Jewish and Non-Jewish Students," Journal of Applied Psychology 22 (1938), pp. 487-492.
29. Everett V. Stonequist, The Marginal Man.
30. Kurt Lewin, Resolving Social Conflicts.

his roots into it . . . he becomes intellectual, thinks abstractly, and yet is introverted and subjective.³¹

Sanua comments on the concept of the marginal man:

Of the Jew it has often been said that he is the marginal man par excellence. The question which can be raised, however is: who is truly marginal? Is it the immigrant, his children, or his grandchildren? The immigrant may be considered marginal because he is uprooted and lives in an alien milieu: his offspring, because they are subjected to the demands of the home and those of the dominant society; the third generation offspring who, although quite acculturated, may still suffer from the minority stigma.³²

A number of studies have similarly been done on the intelligence of the Jewish community as compared with the non-Jewish community. Here, too, conflicting reports have been cited. The study done by Irma Loeb Cohen³³ can suffice as an example of these findings. She reports that Jewish superiority is especially evident in opposites, analogies, and reading. While in arithmetic and number completion, Jews are not so successful.

A recent study by Leo Srole, et al.,³⁴ on emotional

31. Stonequist, op. cit., pp. 80-81.

32. Victor D. Sanua, "Minority Status Among Jews and Their Psychological Adjustment," The Jewish Journal of Sociology (London), 4:No. 2 (Dec. 1962), pp. 242-253.

33. "The Intelligence of Jews as Compared with Non-Jews," Contributions in Psychology (Columbus: Ohio State University, 1927).

34. Mental Health in the Metropolis--The Manhattan Midtown Study, Vol. I.

impairment seems however to offer a plethora of data demonstrating statistical significance in the difference between Jews and non-Jews.

The impairment differences observed between Jews and the other two groups in the table remain statistically significant [Sick-Well ratio: Catholic 832, Protestant 562, Jewish 213, Demonstrating higher mild impairment and lower severe impairment for the Jewish group].

. . . in the lower stratum of socio-economic status origin . . . respondents of Protestant, Catholic and Jewish origin have almost identical Well frequencies, but their Impaired ratios are 32.0, 30.5 and 19.4% respectively.³⁵

A similar finding of cultural differences in the type of emotional impairment has been reported for the Hutterite community:

The clinical analysis of psychoneurotic symptoms among Hutterite patients provides support for the theory that cultural and social characteristics were important factors in their etiology. There is a basis for presuming that the Hutterite culture has a bearing on what types of conflict show up in psychoneurotic patients, the defense mechanisms which are chosen, and the way in which the individuals react to anxiety.³⁶

Hebrew Day School Studies

A number of studies have been conducted comparing Hebrew Day School students and other Jewish children.

35. Ibid., p. 305.

36. Joseph W. Eaton and Robert J. Weil, Culture and Mental Disorders, p. 122.

Nardi³⁷ has found that children in the Hebrew Day Schools do not differ in intelligence from other Jewish children.

Golovensky³⁸ reported that Day School students show more Jewish self-esteem, while yet showing symptoms of protest against "the rigid regimen of Jewish religious norms."

Weiss³⁹ has demonstrated that Day School students show a better total adjustment. They also show less over-valuation of Gentiles, and better own-group acceptance. He also finds them to have more emotional security. The non-Day School students were found to have higher acceptance of Gentiles.

Willner⁴⁰ found Day School students to have checked more health problems than non-Day School students, and Levinson⁴¹ found that both boy and girl products of the Day Schools feel insecure, inferior, and lack

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37. Noah Nardi, "Studies in Intelligence of Jewish Children," Jewish Education 19:No. 3 (Summer 1948).
38. David I. Golovensky, "Ingroup and Outgroup Attitudes, etc." Unpublished Doctoral Dissertation, New York University, 1955.
39. Samuel A. Weiss, "Acceptance of Jews and Gentiles by Jewish Children." Unpublished Doctoral Dissertation, New York University, 1957.
40. Eric Willner, "The Adjustment of Jewish All-Day School Pupils, etc." Unpublished Doctoral Dissertation, New York University, 1963.
41. Boris Levinson, "The Problems of Yeshiva and Stern College Freshmen," Yeshiva Education 2:No. 1 (Fall 1958-5719), pp. 13-26.

self-confidence. It is interesting to note in the Levinson study, that of the ten problems most frequently underlined by Yeshiva boys, three are of a health nature. In view of the discussion earlier in this paper, the discrepancy between these findings about health problems and the other findings about general adjustment, might be explained on the basis of the dependency of the Jewish male upon the female in areas related to body comfort--health, obviously, is such a case.

Silverman⁴² found no vast qualitative difference between Day School and non-Day School students except for "several specific culturally determined facets of life."

Boris Levinson has done a number of studies on Day School students which merit additional attention in this paper. In one study,⁴³ he found that Jewish preschool boys show a slight superiority (not statistically significant) over preschool girls. In a breakdown of performance versus verbal tasks in the traditional intelligence tests, Levinson reports, "In the preschool years, differences already appear between the verbal and performance abilities of Jewish children of traditional parentage." He continues:

42. S. Silverman, "The Psychological Adjustment of All-Day School (Yeshiva) Students." Unpublished Doctoral Dissertation, Yeshiva University, 1953.

43. Boris Levinson, "A Comparative Study of the Intelligence of Jewish Pre-School Boys and Girls, etc.," Journal of Genetic Psychology 90 (1957), pp. 17-22.

Since the magnitude of the differences found is much larger in the later years than in the preschool years, it is of interest to learn what increases these differences. Three hypotheses may be entertained:

(a) that this differentiation in abilities in favor of verbal intelligence is further fostered by the school, the community, and the home, or (b) these differences only affect the boys and not the girls (it is to be noted that the subjects reported in the literature were in the overwhelming number of instances males); or (c) that the highly verbal child is selected by the school and the performance-minded is left by the wayside.⁴⁴

In another study,⁴⁵ Levinson reports for 64 Yeshiva University students the following WAIS Scores:

Their mean performance IQ was 105.30 with a SD of 10.85. The mean verbal IQ was 125.59 with a SD of 10.49. The mean full scale IQ was 117.85 with a SD of 8.85. The difference between the verbal and performance IQ's was at the .01 level of confidence.

Levinson draws the following inference:

The inference drawn is that cultural influence of traditional Jewish values have brought about this psychometric pattern and that any American subculture which emphasizes verbal abilities will bring about a somewhat similar deviant pattern.

In a follow-up study, Levinson compared Jewish children with Italian and Irish children on the subtests of the

44. Boris Levinson, "A Comparative Study of the Verbal and Performance, etc.," Journal of Genetic Psychology 97 (1960), pp. 93-112.

45. Boris Levinson, "Cultural Pressure and WAIS Scatter in a Traditional Jewish Setting," Journal of Genetic Psychology 93 (1958), pp. 277-286.

Wechsler Intelligence Scale for Children.⁴⁶ The most significant differences shown, besides the expected findings about verbal versus performance total scores, were on specific subtests as follows:

Jewish and Italian--Jewish boys scored significantly higher on Information, Comprehension, Arithmetic and Similarities. Italian boys scored significantly higher on Picture Completion, Picture Arrangement and Block Design.

Jewish and Irish--Jewish boys have significantly higher scores on the subtests: Comprehension and Similarities, while the Irish boys have significantly higher scores on the subtests: Picture Completion and Block Design.

Thus Picture Completion and Block Design seem to carry most of the strength of the non-Jewish group, while Comprehension and Similarities carry most of the strength of the Jewish group. It will be noted that Picture Completion and Block Design are two of the three subtests clustering in the Intellectual Index (Block Design, Object Assembly, Picture Completion).

46. Boris Levinson, "Subcultural Variations in Verbal and Performance, etc.," Journal of Genetic Psychology 97 (1960), pp. 149-160.

CHAPTER XII
PSYCHOLOGICAL AND EDUCATIONAL IMPLICATIONS

This study was conceived to resolve several questions. Its primary purpose was to test the hypothesis that the patterns of strengths and weaknesses as well as the self-consistencies involved in cognitive styles may result from the bonding of cultural and psychological factors. Furthermore, it was designed to test the notion that the differences evident among the ethnic-religious subdivisions of the "American middle-class," are not limited to content differences, but extend to the very manner in which children, and presumably adults, experience their environment.

It had long been known that ethnic-religious groups ascribe to different value systems, or, as Florence Kluckhohn prefers to call them, "value orientations." It had also been previously shown that known differences in these value systems prove to be "an excellent predictive device" for frequency of certain Thematic Apperception Test responses. A correlation, however, between a past-oriented, "being-in-becoming" attitude, and field-dependence, may be one of the implications of this study.

Field-Dependence

The study has confirmed the consistency of the measures identified by Herman Witkin as related to the style of cognition known as field-dependence. It has raised some problems, however, with regard to the inclusion of Picture Completion and Figure Drawings, for the White Anglo-Saxon-Protestant culture group.

It has demonstrated, furthermore, that a group of Jewish children, highly acculturated to Jewish values, tend, on the average, to be more field-dependent than their Protestant neighbors of Anglo-Saxon heritage. It has shown also that other Jewish children, less acculturated to Jewish values, tend, on the average, to be intermediary with regard to this dimension, between the other two groups.

The type of task identified as being within the constellation of field-dependence, ranges from the perceptual to the intellectual, from defense structures to body-concept. This study, therefore, has demonstrated that, contrary to the traditional Jewish analytical attitude towards book learning, in perceptual experience, at least, there is reason to believe that Jewish culture is associated with a global, rather than with an analytical attitude. The style of perception in this group, then, appears to be related to a sensitivity to pattern, and overall global impressions. Among the social implications of such perception, there may be included such things as susceptibility

to group suggestion,¹ and recognition of faces,² though conclusive evidence in these areas is lacking.

The presence or absence of pathology appears not to be related to field-dependence, but the kinds of problems that such children have, as well as their conventional defense mechanisms may be related to field-dependence.

Among persons with a global field approach we find severe identity problems, with little struggle for maintenance of identity.³

Here too, though, in view of the historical persistence of the Jewish identity, further study of this particular correlate of field-dependence, is warranted.

The emphasis on denial and repression as defense mechanisms, appears to be related to field-dependence, and may also be reflected in the Jewish personality. An analysis of the history of the Jew points to many--nay, endless--experiences that, perhaps, only utter denial or complete repression could be counted on for the defense of the conscious personality.

Indeed, it has been reported in Mental Health in the Metropolis, that there are differences in the incidence of sundry emotional impairment among the different ethnic-religious groups in New York City, and most specifically,

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1. Herman A. Witkin, Psychological Differentiation, p. 151.
 2. Samuel Messick and Fred Damarin, "Cognitive Styles and Memory for Faces," National Institute of Mental Health, United States Public Health Service, RB-63-21, July 1963 (mimeographed).
 3. Witkin, op. cit., p. 213.

in the comparison of the Jewish and non-Jewish groups. Karen Horney's observation is most appropriate here:

When we focus our attention on the actual neurotic difficulties we recognize that neuroses are generated not only by incidental individual experiences, but also by the specific cultural conditions under which we live. In fact the cultural conditions not only lend weight and color to the individual experiences but in the last analysis determine their particular form. It is an individual fate, for example, to have a domineering or self-sacrificing mother, but it is only under definite cultural conditions that we find domineering or self-sacrificing mothers, and it is also only because of these existing conditions that such an experience will have an influence on later life.⁴

This study has demonstrated, then, an inherent challenge to the notion of the existence of a typical middle-class American. And indeed, it appears to this writer, it is not to our benefit to deny ethnic and cultural differences. Rather, we should recognize and make use of them. As Americans, we should attempt to orchestrate our differences rather than melt them down into a dull sameness.

Intelligence Testing

The wide currency of tests of general intelligence, and most specifically of the Wechsler Intelligence Scale for Children, is predicated upon the notion that while there are cultural differences with regard to some of the verbal components of intelligence tests, nonetheless,

4. The Neurotic Personality of Our Time, p. viii.

performance on these tasks is well correlated with school success. Furthermore, at least the performance subtests of these instruments, it is said, are culture-fair.

This study, however, has demonstrated that with regard to several of the performance subtests, and perhaps, some of the verbal tests, children of different sub-cultures differ significantly from one another. It has been shown, for example, that in tests requiring attention and concentration, traditional Jewish children are relatively stronger than their Protestant neighbors, while the reverse is true with regard to tests requiring manipulative-perceptual skill. Performance on Block Design and Object Assembly has been shown to be particularly weak among highly acculturated Jewish children. These tests have been considered among the best and most reliable of the performance subtests.

It seems reasonable, then, for psychologists and psychometricians to reconsider the standards that were established as "norms," with a view towards establishing different norms for different culture groups.

Furthermore, in view of the demonstrated differences in the test profile of "typical" middle-class children of varied ethnic-religious affiliation, we may reasonably question the validity of equating children on the basis of their overall performance on these tests. It seems doubtful that children who perceive their world differently are best served by grouping them according to their Full

Scale I.Q. scores.

Educational Implications

For the educator, this study demonstrates the individual and group differences extant in style of perception, and, consequently, style of learning. It seems reasonable to assume, for example, that field-dependent children will learn best when presented with materials within a complementary global context, while field-independent children might learn best when the material is presented to them in an analytical manner. Comparing two techniques for the teaching of reading, stress of sight vocabulary or phonetic analysis, it seems apparent that when sight reading, a child must be far more aware of the total visual context than would be necessary when he is engaged in phonetic word attack. The implications, then, for class grouping and a proper balance between sight reading and phonetic word attack, based upon perceptual-- and cultural--differences, is readily apparent.

Furthermore, is it not reasonable to question whether a teacher who is herself analytical in approach can be an efficient teacher of children who perceive things in a global manner? If further study verifies the conclusions of this study, it may follow that different cultural groups would learn best from different kinds of teachers. Would a "good teacher" of core-culture American children be the best teacher for a group of highly acculturated

Jewish children? Or Puerto Rican, Negro, or Spanish-American, for that matter?

A further consideration for the global perceiver, might be the placement of courses in his daily program. What effect will contiguous courses have upon him as compared with his analytical neighbor? The implications for the multi-ethnic school systems of the large systems is evident.

Hebrew Day Schools

The Hebrew Day School movement in the United States, totals, now, approximately 300 schools, with a student population of 53,000. As indicated, furthermore:

The dramatic increase of Jewish Day Schools indicates that they have met a deeply felt need for more intensive Jewish education by groups in the community.⁵

An eminent educator in the Hebrew Day School movement, Dr. Joseph Kaminetsky, speaks of these schools as serving the future of the American Jew. He states:

We have built a number of strong "islands within" or "cities of refuge" which are best calculated to raise a generation of informed and intelligent Jews.

We feel that our pupils do know--and will know--more about Jewish values and ideals than the products of any other type of Jewish school. Knowledge brings with it familiarity and even loyalty; and our children are getting

5. Alexander M. Dushkin and Uriah Z. Engelman, Jewish Education in the United States, Report of the Commission for the Study of Jewish Education in the United States, p. 229.

more Jewish facts and are studying more of our basic sacred texts.

Our pupils too, are being inspired to live Jewishly--in every sense of that term.⁶

If this be so, it seems imperative that more be known of the effects of styles of cognition, and field-dependence specifically, upon the personalities and learning of these children.

The problem then, for the educators connected with these school systems, is to decide whether it is desirable to compensate for the differences between the cognitive style of these children and that of more typical American children, or recognize and accept the uniqueness of the children who are their charges. The choice here is not methodological, it rests upon the very basis of a philosophy of Jewish education.

In line with a prevalent eclecticism, it seems most probable that in this case, also, the decision will be neither whole-hearted acceptance nor less yet total rejection of this uniqueness, but rather acceptance of the desirable and rejection of the undesirable. How then to be sensitive to pattern, and at the same time analytical? Intellectual, and at the same time responsive to perceptual and kinesthetic cues? Verbal, and at the same time sensate?

6. "Evaluating the Program and Effectiveness of the All-Day School, Jewish Education 27 (1956), p. 47.

Verbal Skills

It has been demonstrated, in this study, that an analytical attitude in perception is correlated with the same attitude towards verbal, or symbolic stimuli. This was true, however, only for the core-culture American. For the Jewish child, it was found to be uncorrelated. Here, then, it appears, this study has demonstrated that cultural press can be selective! It can affect a child in the direction of field-dependence in one modality, while leaving him unaffected in other modalities. Jewish culture, of course, places a high premium on analytical functioning in Talmudic study. The essence and quintessence of excellence in this scholarship is analytical exploration of minute and hair-splitting discordance. Seemingly, such training has left its mark on the Jewish child selectively--in verbal modalities, but not in sensory modalities--hence the negligible correlation between performance on the Verbal Disembedding Test and other measures of field-dependence for the Jewish children.

The study also calls attention to the fact that for the Jewish group, Body Adjustment series "a" (body and room tilted to the same side) was better correlated than series "b" (body and room tilted to opposite sides), with each of the measures associated with field-dependence except Picture Completion. Even there, the difference between the two tests was negligible, with series "a" correlated .24, as compared with series "b" which was

correlated .27.

Contrast this with the white Anglo-Saxon Protestant group, where the reverse is true in every single case! It appears, then, that series "b", which gives the subject the opportunity to recognize the position of true upright when he passes through it, serves to mitigate the field-dependence of the Jewish group. Does this, perhaps, reflect the compensatory influence of an intellectualization for the Jewish group? Perhaps it is easier to effect a satisfactory resolution of a conflict between visual and kinesthetic cues when the intellect says, in effect, "You are surely not upright now. Watch for all available cues." Whereas in series "a", the subject has less convincing evidence that he is not then in an upright position, or close to it. In series "a", it will be noted, the subject is only 13° tilted from the room's angle, whereas in series "b", he is tilted 57° from the room's angle.

If this analysis is correct, it behooves us further to note the correlations between series "a" and series "b", which for the Protestant child, stands at .71, for Witkin's partially acculturated Jewish group, stands at .65, and for the highly acculturated Jewish group, stands at only .50.

This appears to be further evidence that culture can selectively affect cognitive style. The Jewish cultural stress on intellectualizing may help the field-dependent

highly acculturated Jewish child most, the field-dependent partially acculturated Jewish child less, and the field-dependent white Anglo-Saxon Protestant child least.

A further and final point in this regard, is the seeming contradiction between the lack of sensitivity to body cues for the highly acculturated Jewish group, and the well-known penchant of the traditional Chasidic Jew for folk dancing. Can a dancing people be insensitive to their bodies? In this writer's opinion, this is precisely the case. For the Chasidic Jew, the aim of the dance is, seemingly, not the pleasure of body expression, rather to the contrary, it is a vehicle for the liberation of the spirit from the body. One who has observed this dancing is impressed by the trance-like stance of the dancers. It is a communion, if you will, of the spirits rather than the bodies. It is the embodiment of love and awe--at one time, approach and avoidance. It is the resolution of the conflict evident in the standard Jewish blessing, "Blessed art Thou . . . He who creates . . ." Thou and He, yet no contradiction!

Provocative Questions For Further Research

1. Sex differences have consistently been reported in tests of field-dependence. Girls are found to be more field-dependent than boys. In Jewish culture, as has been portrayed, it is the boys, in particular, who feel the press of intellectualization and dependency. Would Jewish

girls, then, of similar background, be relatively field-independent, contrary to the reported trend?

2. An analytical perceptual attitude requires both the fractionization and subsequent reconstruction of a pattern. Does the relative weakness of the Jewish group represent difficulty in the fractionization or in the reconstruction?

3. If the Jewish home tends to be an "interaction-inhibiting home," what makes for the relative difference between boys in the same family? Are there personality factors, and if so, what are they, that make one child more susceptible to this influence than the others?

4. In reference to which additional cognitive styles do culture groups differ from one another? Are "leveling and sharpening" affected by Jewish culture in the same manner as field-dependence? Would Italian Catholics be field-dependent like Jews, because of their tradition-bound way of life, or does their tendency to act-out bodily, tend to make them field-independent?

5. Is there a relationship between the Authoritarian Personality and field-dependence?

6. Would classroom grouping of children according to cognitive style be more efficacious than the present practice of grouping them by "intelligence?"

7. When controlling for age and verbal ability, would highly acculturated Jewish children still do better on the Verbal Disembedding Test?

8. Can schools effect a change in a child's cognitive style?

9. Would the findings of this study hold up with much larger samples? Would they hold up outside of New York City?

10. Does Picture Completion really belong in the constellation with field-dependence?

11. How does bilingualism affect the results of this study?

These and similar questions are left for further investigation.

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APPENDIX

APPENDIX A
VERBAL DISEMBEDDING TEST

The development of the Verbal Disembedding Test included two pilot studies. The first pilot study used ten questions, and was tested on two groups of Jewish children, one, a group of highly acculturated Jewish boys, and the second, a group of partially acculturated Jewish boys. An analysis of the distribution of scores on each question showed correlations of from .50 to .77 with the mean scores for all ten of the items. An odd-even reliability coefficient of .44 was obtained.

TABLE XV
VERBAL DISEMBEDDING TEST
HARMONIC MEAN SCORES

GROUP	V.D.T.	RAW VOCABULARY	E.F.T.
Jewish	139	37.8	1842
W.A.S.P.	149	41.0	1422
Pilot	197	40.6	1917

Utilizing the insights gained from that administration of the test items, ten additional questions of increasing difficulty were added to the improved first set of questions. A new pilot group was chosen to reflect greater

heterogeneity of ethnic background and age. The children were from a local public school, and ranged in age from 9 to 11.

This time, in addition to administering the Verbal Disembedding Test to the subjects, they were also given the Vocabulary subtest of the Wechsler Intelligence Scale for Children and the Embedded Figures Test. The correlations of the individual test items with the mean score for all items ranged now from .15 to .87, while the correlations with Embedded Figures ranged from .16 to .51. The correlations with Vocabulary ranged from .05 to .51.

An odd-even reliability coefficient, this time, yielded a score of .80. Using the Spearman Brown Prophecy formula to determine the reliability of the total test of 20 items, a coefficient of .89 was obtained.

The correlation between the entire battery of 20 items and the Embedded Figures Test was .35, while its correlation with Vocabulary was .49. The Embedded Figures Test itself, correlated .46 with the Vocabulary test.

The item analysis on page 180 lists each of these questions together with its correlation with (1) the mean score for the entire Verbal Disembedding Test, (2) the Embedded Figures Test, and (3) the Vocabulary subtest.

Using a combination of criteria including (1) high correlation with Embedded Figures, (2) higher correlation with Embedded Figures than with Vocabulary, and (3) magnitude of correlation with the mean score of the total Verbal

Disembedding Test, the apparent best ten questions (3, 4, 5, 6, 8, 9, 10, 13, 16, and 19) were chosen. These were then ranged in ascending order of difficulty (16, 13, 3, 8, 9, 6, 5, 19, 4, and 10)--as determined by mean time necessary to disembed the words--and recalculated for reliability and validity. The odd-even reliability coefficient of the ten items, using the Spearman-Brown Prophecy formula was .81, the correlation with Embedded Figures was .46, and with Vocabulary, .48.

A first order partial correlation coefficient between Verbal Disembedding and Embedded Figures, partialing out the effect of the correlation with Vocabulary, yielded an "r" of .31.

It was this test, the best ten items in ascending order of difficulty, that was used in this study.

Reliability of the Test

Odd-even reliability coefficients are consistently above .80. This level is considered sufficiently high for research instruments being used to determine group means.

The correlations of the individual items with Embedded Figures, Vocabulary, and mean Verbal Disembedding are reported in Table XVI.

Directions for Administration

The lines of words are presented to the subject on separate cards, with the following instructions:

I will show you lists of words that have something to do with one another. When I show you each list, I will want you to tell me what these words

have to do with one another and why they fit together. I will also want you to tell me one more word that I may add to the list. For example, if I say "blackboard, chalk, pencil, desk," what will you say?

You will have to tell me these things just as quickly as you can, because I will be timing you.

Work quickly and remember you must tell me (1) why these words fit together, and (2) a new word that I could add to the list.

TABLE XVI
VERBAL DISEMBEDDING TEST
CORRELATIONS

GROUP	1/VDT vs. 1/EFT	1/VDT vs. VOC.	1/EFT vs. VOC.	ODD vs. EVEN
Jewish	.04	.17	.25	.80**
W.A.S.P.	.38*	.48*	.17	.85**
Pilot	.48*	.48*	.46	.81**

*prob. $\angle .05$

**prob. $\angle .01$

After each of the four lines is presented separately (and the tester is sure that the key words have been properly embedded), a new card printed with all four lines in a row is presented with the instruction:

Now find the one word on each line that has most to do with _____. Work quickly, you are being timed.

The disembedding stimulus word or phrase, e.g., eating, radio, is presented simultaneously on a separate card.

Question 18 is **first** presented to the subject as a practice item (underlining not present on the cards):

Question 18 avenues streets sidewalks blocks
question doubt wonder puzzle

eagle bat wolf cow
 down up top bottom

Cards with each of these lines (simultaneously read aloud by the tester) are presented to the subject, one at a time, with the request that the subject add one or more similar words to the list, or state the category within which all of the words fit. If after a reasonable amount of time, the subject does not succeed in doing either of these tasks, the tester states the category of the words and asks for a suitable additional word. Thus, for the items listed, the categories might be the following:

parts of a city
 being unsure
 animals
 directions

Additional suitable words might be:

neighborhoods
 ask
 sheep
 left

The specific words or titles are unimportant. Attention is paid only to the proper embedding of the key words. A card with all four lines together is then presented with a request that the subject "find the one word on each line that has most to do with 'Play Objects.'" The correct answer to this test item is: blocks, puzzle, bat, and top.

The time in seconds (maximum 99) required to disembed these words, is the subject's score for the item. A subject who selects an incorrect word is told to "try line __ again."

An item analysis of the test is found in Table XVII.

TABLE XVII
 VERBAL DISEMBEDDING TEST
 ITEM ANALYSIS

QUESTION	MEAN	S.D.	CORRELATION WITH EFT	CORRELATION WITH VOC.	CORRELATION WITH MEAN VDT
1) Jewish	12.83	6.66	.045	-.152	
WASP	15.27	9.58	.467**	-.219	.439**
Pilot	13.05	6.89	.439*	-.105	
Total	13.64	7.81	.273**	-.132	
2) Jewish	11.59	7.64	.342*	-.362**	
WASP	12.53	6.62	.369*	-.761**	.686**
Pilot	13.35	6.41	.415*	-.293	
Total	12.25	7.12	.353**	-.421**	
3) Jewish	10.00	5.91	.105	-.168	
WASP	12.17	10.14	.211	-.312*	.613**
Pilot	14.75	8.12	.219	-.081	
Total	11.67	8.12	.167*	-.138	
4) Jewish	14.17	10.85	.072	-.167	
WASP	13.07	8.41	.109	-.431**	.495**
Pilot	16.10	10.66	.233	-.236	
Total	14.23	10.16	.126	-.244**	
5) Jewish	11.07	9.69	.155	-.092	
WASP	10.30	3.91	.188	-.340*	.479**
Pilot	16.45	6.03	.512**	-.267	
Total	11.95	7.92	.217*	-.130	
6) Jewish	12.41	9.04	.068	-.077	
WASP	13.73	7.86	.115	-.246	.495**
Pilot	21.80	13.59	.257	-.141	
Total	14.78	10.50	.136	-.076	
7) Jewish	17.59	13.53	-.117	.058	
WASP	19.40	12.21	.279	-.365*	.644**
Pilot	23.60	13.80	.378*	-.276	
Total	19.49	13.43	.108	-.094	
8) Jewish	15.70	8.25	.018	-.231	
WASP	23.63	20.02	-.000	-.437**	.653**
Pilot	29.30	22.55	.317	-.407*	
Total	21.01	17.14	.077	-.200*	
9) Jewish	23.87	12.99	.257	-.262*	
WASP	23.83	11.25	.188	-.660**	.728**
Pilot	36.90	26.65	.401*	-.212	
Total	26.57	17.22	.271**	-.266**	
10) Jewish	30.35	20.20	.194	-.112	
WASP	32.80	24.62	.166	-.316	.647**
Pilot	44.35	28.78	.180	-.246	
Total	32.99	23.42	.112	-.104	

**prob. $\angle .01$ *prob. $\angle .05$

TABLE XVIII
PILOT TEST ITEM ANALYSIS

Question 1	<u>plate</u> paint cover coat
<u>Eating</u>	lane <u>fork</u> road curve sparrow <u>swallow</u> bluebird robin beauty fashion style <u>taste</u>
Correlations:	mean of VDT .550 EFT .279 Voc. -.509

Question 2	highway <u>tube</u> bridge road
<u>Radio</u>	track <u>station</u> depot platform <u>tune</u> song dance melody smelling tasting <u>hearing</u> feeling
Correlations:	mean of VDT .671 EFT .077 Voc. -.083

Question 3	beak <u>bill</u> lips mouth
<u>Money</u>	fifth <u>quarter</u> tenth third tie pants bond join polka-dot <u>plaid</u> <u>check</u> stripe
Correlations:	mean of VDT .586 EFT .219 Voc. -.081

Question 4	bulb dish window <u>mirror</u>
<u>Looking alike</u>	group <u>pair</u> audience crowd fish <u>model</u> paint hunt paper <u>match</u> flame wood
Correlations:	mean of VDT .656 EFT .401 Voc. -.211

Question 5	<u>shade</u> stain dye paint
<u>A window</u>	sweater bedspread <u>curtains</u> rug bottle cup <u>glass</u> jar <u>awning</u> roof hat umbrella
Correlations:	mean of VDT .522 EFT .377 Voc. -.276

Question 6	<u>ashes</u> dirt filth garbage
<u>Smoking</u>	cough breathe <u>puff</u> sneeze faucet water <u>pipe</u> sink spark <u>smoke</u> burn torch
Correlations:	mean of VDT .198 EFT .257 Voc. -.140

Question 7 level slanted bent straight
 ink desk file memo
Carpenter tools drill march parade band
 looked saw viewed observed

Correlations: mean of VDT .531 EFT .160 Voc. -.344

Question 8 glass cup saucer plate
 coat jacket glove shoe
Baseball party ball wedding dance
 performance play act show

Correlations: mean of VDT .532 EFT .233 Voc. -.236

Question 9 bee wasp mosquito fly
 hunger fast starve thirst
Going quickly dot dash light telegraph
 crack tear break run

Correlations: mean of VDT .276 EFT .512 Voc. -.266

Question 10 even smooth straight flat
 brother mother aunt twin
Two things that wire circus swing balance
are the same subtract equal sum divide

Correlations: mean of VDT .601 EFT .180 Voc. -.246

Question 11 gate admit ticket entrance
 state city country village
Things we do while point tell open show
speaking station express local train

Correlations: mean of VDT .731 EFT .149 Voc. -.382

Question 12 belt sash cord band
 make force oblige command
A group of people body finger head foot
 crowd drive push press

Correlations: mean of VDT .580 EFT .051 Voc. -.089

Question 13 punch water wine juice
 noise roar sound knock
Hurting somebody pitch hit walk bunt
 whistle blow eat sing

Correlations: mean of VDT .874 EFT .415 Voc. -.293

Question 14 send mail carry ship
 bark branch twig trunk
Travel fly beetle ant bee
 salute train gun maneuvers

Correlations: mean of VDT .158 EFT -.163 Voc. -.050

Question 15 but only however nevertheless
 general major private corporal
Being alone strike single double ball
 us they he them

Correlations: mean of VDT .443 EFT .013 Voc. -.260

Question 16 bang whistle knock stamp
 chime melody note tune
A letter lecture address speech talk
 book magazine encyclopedia paper

Correlations: mean of VDT .373 EFT .439 Voc. -.104

Question 17 join agree unite fit
 salute flag country pledge
A promise letter sentence word phrase
 swear damn scold curse

Correlations: mean of VDT .667 EFT .068 Voc. -.461

Question 18 avenues streets sidewalks blocks
 question doubt wonder puzzle
Play things eagle bat wolf cow
 down up top side

Correlations: mean of VDT .269 EFT .081 Voc. -.421

Question 19 comma apostrophe period colon
 pepper spice salt season
An amount of time old stale age ancient
 tenth second sixth third

Correlations: mean of VDT .751 EFT .316 Voc. -.407

Question 20 symbol sign letter mark
 part section article piece
Things we write note tone chorus solo
 story apartment floor penthouse

Correlations: mean of VDT .634 EFT -.092 Voc. -.181

Summary

1. Order of difficulty, as determined by mean time to disembed
 16, 13, 3, 8, 9, 18, 15, 14, 20, 1, 6, 5, 12, 11,
 7, 19, 17, 2, 4, 10.
2. Order of correlation with EFT, from high to low
 9, 16, 13, 4, 5, 19, 1, 6, 8, 3, 10, 7, 11, 18,
 2, 17, 12, 15, 20, 14.
3. Order of correlation with Voc., from low to high (negative)
 14, 3, 2, 12, 16, 6, 20, 4, 8, 10, 15, 9, 5, 13,
 7, 11, 19, 18, 17, 1.
4. Order of preference for correlation with EFT over correlation with Voc.
 4, 3, 13, 6, 14, 5, 8, 2, 12, 10, 7, 20, 19, 1,
 11, 15, 9, 16, 18, 17, 20, 14.
5. Order of correlation with mean of VDT, from high to low
 13, 19, 11, 2, 17, 4, 20, 10, 3, 12, 1, 8, 7, 5,
 15, 16, 9, 18, 6, 14.
6. Apparent best 10: 3, 4, 5, 6, 8, 9, 10, 13, 16, 19.
7. In order of difficulty, apparent best 10: 16, 13, 3,
 8, 9, 6, 5, 19, 4, 10.

APPENDIX B
QUESTIONNAIRES

The questionnaire for the Jewish group represents the results of a pilot study of an earlier form of the questionnaire tested on sixty children. For the Protestant group of children, those questions related to Jewish culture have been deleted.

Questions VI, VII, VIII, IX, X, and XII are used as indices of the degree of Jewish acculturation in the home and its likely significance to the child. Items IX and X have been so organized that the specific statements are, in effect, cumulative expressions of Jewish traditional culture. Thus, in the pilot study, on the question of Religious Observance, it was found (1) that the question discriminated between two known groups, and (2) that of the 32 children who checked item number one, 25 of these children also checked item number 2, and 16 of these children also checked item number 3. There were no children who checked item number 2 who had not also checked item number 1; 3 additional children did check item number 3 though they had not checked one or both of the previous items.

While not assuming equal value for each of the items

in questions IX and X, we feel it reasonable to assume that a child who scores higher is more deeply affected by Jewish acculturation than his friend who scores lower.

Questions IV and V are used as indices of the degree of stability of the home.

Questions XI, XIII, XIV, XV, and XVI are used as indices of socio-economic status following Sims¹ and others.

1. Verner M. Sims, "Relations Between Social-Class Identification and Personality Adjustment of a Group of High School and College Students," Journal of Social Psychology 40, pp. 323-327.

QUESTIONNAIRE FOR JEWISH CHILDREN

Code Number _____

I. Parents' Place of Birth

(Put a circle around the number next to each statement that is true for you.)

- 1 - Both of my parents were born in the United States.
- 2 - Both of my parents were born in North-Eastern Europe.
(Poland, Russia, Latvia, Lithuania, Austria-Hungary)
- 3 - Both of my parents were born neither in the United States nor in North-Eastern Europe.
- 4 - Only one of my parents was born in the United States.
- 5 - Only one of my parents was born in North-Eastern Europe.
- 6 - I don't know where one or both of my parents were born.

(Add the numbers that you circled and put the total here.) _____(46)

II. Parents' Arrival in the United States (If both of your parents were born in the United States, mark an X below, and disregard this question.)

- 1 - My father came to the United States as a child.
- 2 - My mother came to the United States as a child.
- 5 - My father came to the United States as an unmarried youth.
- 10 - My mother came to the United States as an unmarried youth.
- 20 - My parents were married before they came to the United States.
- X - Both of my parents were born in the United States.

(Add the numbers that you circled and put the total here.) _____(47, 48)

III. Languages Spoken at Home

(Put a circle around the number next to each statement that is true for you.)

- 1 - In the main, we speak English in my home.
- 2 - In the main, we speak Yiddish in my home.
- 3 - In the main, we speak Hebrew in my home.
- 4 - In the main, in my home, we speak a language different from those listed above. We speak _____.

In addition to the language checked above, in my home, we also speak:

- 5 - a great deal of English.
- 10 - a great deal of Yiddish.
- 20 - a great deal of Hebrew.

(Add the numbers that you circled and put the total here.) _____ (49, 50)

IV. German Concentration Camp

(Put a circle around the number next to each statement that is true for you.)

- 0 - My parents never were prisoners in a German concentration camp.
- 1 - As a child, my father was a prisoner in a German concentration camp.
- 2 - As a child, my mother was a prisoner in a German concentration camp.
- 5 - As an unmarried youth, my father was a prisoner in a German concentration camp.
- 10 - As an unmarried youth, my mother was a prisoner in a German concentration camp.
- 20 - One or both of my parents were married, when they were prisoners in a German concentration camp.

(Add the numbers that you circled and put the total here.) _____ (51, 52)

V. Home Environment

(Put a circle around the number next to each statement that is true for you.)

- 1 - My mother, but not my father, lives in my house.
- 2 - My father, but not my mother, lives in my house.
- 3 - I don't live with my mother or my father.
- 10 - Both of my parents are alive.
- 20 - My father is not living.
- 30 - My mother is not living.

(Add the numbers that you circled and put the total here.) _____(53, 54)

VI. Jewish Education of Father

(Put a circle around the number next to each statement that is true for you.)

- 1 - My father knows a great deal of Hebrew, but never went to any Hebrew School or Yeshiva.
- 2 - My father received most of his Hebrew education at a Sunday School, Weekday Religious School, or Talmud Torah.
- 3 - My father was graduated from a Weekday Religious School or Talmud Torah.
- 4 - My father was graduated from a Hebrew Elementary Day School or Yeshivah.
- 8 - My father was graduated from a Yeshivah High School.
- 10 - My father was graduated from a Hebrew Teacher's College.
- 20 - My father studied in a Rabbinical School (a Yeshivah for boys older than High School age), but didn't graduate.
- 40 - My father is a Rabbi.

(Add the numbers that you circled and put the total here.) _____(56, 57)

VII. Jewish Education of Mother

(Put a circle around the number next to each statement that is true for you.)

- 1 - My mother knows a great deal of Hebrew or Torah, but never went to any Hebrew School.
- 2 - My mother received most of her Hebrew education at a Sunday School, Weekday Religious School or Talmud Torah.
- 3 - My mother was graduated from a Weekday Religious School or Talmud Torah.
- 4 - My mother was graduated from a Hebrew Elementary Day School, a Yeshivah or a Bais Yaakov.
- 8 - My mother was graduated from a Yeshivah or Bais Yaakov High School.
- 10 - My mother was graduated from a Hebrew Teacher's Seminary or College.
- 20 - My mother studied in a Hebrew Teacher's College or Seminary, but didn't graduate.
- 40 - My mother is, or was, a Hebrew teacher.

(Add the numbers that you circled and put the total here.) _____(58, 59)

VIII. Synagogue Affiliation

(Put a circle around the number next to each statement that is true for you.)

- 1 - My family mainly, or always, prays in an Orthodox Synagogue.
- 2 - My family mainly, or always, prays in a Conservative Temple.
- 3 - My family mainly, or always, prays in a Reform Temple.
- 4 - My family hardly ever goes to a Synagogue or Temple to pray.

(Put the number that you circled here.) _____(60)

IX. Religious Observance

(Put a circle around the number next to each statement that is true for you.)

- 1 - In my home, we eat only kosher food.
- 1 - In my home, we recite Kiddush on Friday night.
- 1 - Each day, during morning prayers, my father wears Tfillin (phylacteries).

(Add the numbers that you circled and put the total here.) _____(61)

X. Sabbath Observance

(Put a circle around the number next to each statement that is true for you.)

- 1 - On the Sabbath, I do not write with a pencil or pen.
- 1 - On the Sabbath, my mother neither cooks nor goes shopping.
- 1 - On the Sabbath, I turn the lights, T.V. or radio neither on nor off.
- 1 - I observe all of the above, and so do all the other unmarried members of my family.

(Add the numbers that you have circled and put the total here.) _____(62)

XI. Home Library

(Put a circle around the number next to the statement that is true for you.)

Counting books of all kinds, in my house

- 1 - we have fewer than 100 books.
- 2 - we have between 100 and 300 books.
- 3 - we have between 300 and 500 books.
- 4 - we have more than 500 books.

(Put the number that you circled here.) _____(63)

XII. Satisfaction With School

(Put a circle around the number next to the statement that is true for you.)

- 1 - I enjoy my English class, but not my Hebrew class.
- 2 - I enjoy my Hebrew class, but not my English class.
- 3 - I enjoy both my Hebrew and my English classes.
- 4 - I do not enjoy either my Hebrew or my English class.

(Put the number that you circled here.) _____(64)

Father's Occupation and Schooling (If your mother earns most of the money for your family, answer the questions as if they asked about her rather than about your father.)

IF YOUR PARENTS ARE RETIRED AND DO NOT HAVE TO WORK,
ANSWER THE QUESTIONS FOR THE WORK THEY DID BEFORE RETIRING.

XV. My Father Owns a Business

- 1 - but employs no workers.
- 10 - and employs between one and five people.
- 20 - and employs between six and ten people.
- 30 - and employs more than ten people.
- 2 - My father owns a business in which he gets paid for making or fixing things, giving haircuts, etc.
- 5 - My father owns a large office or apartment building or several smaller houses.

(Add the numbers that you circled and put the total here.) _____(65, 66)

XVI. My Father is a Professional or Works for Someone Else

- 50 - My father is a professional (doctor, lawyer, dentist, teacher, rabbi, engineer, research worker, etc.).
- 40 - My father is an executive of a large business firm (president, vice-president, member of the board of directors, etc.).
- 30 - My father is not an executive officer, but he is in charge of other people in a large business firm (department head, store manager, etc.).
- 20 - My father is a skilled office worker (salesman, bookkeeper, clerk, post office worker, etc.).
- 10 - My father is a skilled laborer--electrician, diamond cutter, tailor, plumber, carpenter, truck driver, etc. (He works for someone else, he is not the boss.)
- 5 - My father is a skilled worker in the printing trades (linotyper, typesetter, etc.).
- 4 - My father is a skilled laborer and is in charge of other workers.
- 2 - My father is a laborer, helper, shipping clerk, etc.
- 1 - My father changes his job every few months.

(Add the numbers that you circled and put the total here.) _____(67, 68)

XVII. Schooling

- 1 - After graduating from high school, my father graduated from a technical school (electrician, television repair, etc.).
- 2 - My father is a college graduate.
- 5 - My father has a doctor's degree (M.D., Ph.D., D.D., etc.).

(Add the numbers that you circled and put the total here.) _____(69)

XVIII. Name your father's main occupation here. _____

QUESTIONNAIRE FOR PROTESTANT CHILDREN

Code Number _____

I. Parents' Place of Birth

(Put a circle around the number next to each statement that is true for you.)

- 1 - Both of my parents were born in the United States.
- 4 - Only one of my parents was born in the United States.
- 6 - I don't know where one or both of my parents were born.
- 7 - Both of my parents come from Great Britain (England, Wales, etc.).
- 8 - Only one of my parents was born in Great Britain.

(Add the numbers that you circled and put the total here.) _____(45, 46)

II. Parents' Arrival in the United States (If both of your parents were born in the United States, mark an X below and disregard this question.)

- 1 - My father came to the United States as a child.
- 2 - My mother came to the United States as a child.
- 5 - My father came to the United States as an unmarried youth.
- 10 - My mother came to the United States as an unmarried youth.
- 20 - My parents were married before they came to the United States.
- X - Both of my parents were born in the United States.

(Add the numbers that you circled and put the total here.) _____(47, 48)

III. Languages Spoken at Home

(Put a circle around the number next to each statement that is true for you.)

- 1 - In the main, we speak English in my home.
- 4 - In the main, in my home, we speak a language different from English. We speak _____.
- 30 - In addition to the language checked above, in my home, we also speak _____.

(Add the numbers that you circled and put the total here.) _____(49, 50)

IV. Home Environment

(Put a circle around the number next to each statement that is true for you.)

- 1 - My mother, but not my father, lives in my house.
- 2 - My father, but not my mother, lives in my house.
- 3 - I don't live with my mother or my father.
- 10 - Both of my parents are alive.
- 20 - My father is not living.
- 30 - My mother is not living.

(Add the numbers that you circled and put the total here.) _____(53, 54)

V. Church Affiliation

(Put a circle around the number next to each statement that is true for you.)

- 1 - My family mainly, or always, prays in an Episcopal Church.
- 2 - My family mainly, or always, prays in a Presbyterian Church.
- 3 - My family goes to church at least once a month.
- 6 - My family goes to church every week.
- 9 - My family hardly ever goes to church.

(Add the numbers that you circled and put the total here.) _____(55, 56)

VI. Satisfaction With School

(Put a circle around the number next to the statement that is true for you.)

- 1 - I enjoy my secular classes, but not my religious classes.
- 2 - I enjoy my religious classes, but not my secular classes.
- 3 - I enjoy both my religious and my secular classes.
- 4 - I do not enjoy either my religious or my secular classes.

(Put the number that you circled, here.) _____(57)

VII. Home Library

(Put a circle around the number next to the statement that is true for you.)

Counting books of all kinds, in my house:

- 1 - we have fewer than 100 books.
- 2 - we have between 100 and 300 books.
- 3 - we have between 300 and 500 books.
- 4 - we have more than 500 books.

(Put the number that you circled, here.) _____(58)

Father's Occupation and Schooling (If your mother earns most of the money for your family, answer the questions as if they asked about her rather than about your father.)

IF YOUR PARENTS ARE RETIRED AND DO NOT HAVE TO WORK, ANSWER THE QUESTIONS FOR THE WORK THEY DID BEFORE RETIRING.

VIII. My Father Owns a Business

- 1 - But employs no workers.
- 10 - and employs between one and five people.
- 20 - and employs between six and ten people.
- 30 - and employs more than ten people.
- 2 - My father owns a business in which he gets paid for making or fixing things, plumbing, etc.
- 5 - My father owns a large office or apartment building or several smaller houses.

(Add the numbers that you circled and put the total here.) _____(59, 60)

IX. My Father's Schooling

- 1 - After graduating from high school, my father graduated from a technical school (electrician, television repair, etc.).
- 2 - My father is a college graduate. He went to _____.
- 5 - My father has a doctor's degree (M.D., Ph. D., D.D., etc.).

(Add the numbers that you circled and put the total here.) _____(62)

X. My Father is a Professional or Works For Someone Else

- 50 - My father is a professional (doctor, lawyer, accountant, dentist, teacher, minister, engineer, research worker, etc.).
- 40 - My father is an executive of a large business firm (president, vice-president, member of the board of directors, etc.).
- 30 - My father is not an executive officer, but he is in charge of other people in a large business firm (department head, store manager, etc.).
- 20 - My father is a skilled office worker (salesman, bookkeeper, clerk, post office worker, etc.).
- 10 - My father is a skilled laborer--electrician, brick layer, carpenter, plumber, truck driver, etc. (He works for someone else, he is not the boss.)
- 5 - My father is a skilled worker in the printing trades (linotyper, typesetter, etc.).
- 4 - My father is a skilled laborer and is in charge of other workers.
- 2 - My father is a laborer, helper, shipping clerk, etc.
- 1 - My father changes his job every few weeks.

(Add the numbers that you circled and put the total here.) _____ (63, 64)

XI. Parent's Type of Schooling

- 1 - My father attended a public elementary school.
- 2 - My father attended a private elementary school. The name of the school was _____.
- 3 - My mother attended a public elementary school.
- 6 - My mother attended a private elementary school. The name of the school was _____.
- 9 - My father attended a public high school.
- 20 - My father attended a private high school. The name of the school was _____.
- 30 - My mother attended a public high school.
- 50 - My mother attended a private high school. The name of the school was _____.

(Add the numbers that you circled and put the total here.) _____(65, 66)

TABLE XIX
CORRELATION MATRIX
PROTESTANT SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Body Adjustment "a+b"	Perceptual Index	Intellectual Index	Mod. Intellectual In.	Attention-Concentration	Verbal Comprehension 1	Verbal Comprehension 2	Verbal Index	Figure Drawing	Verbal Disembedding	Full Scale I.Q.
Body Adjustment "a"	1.00												
Body Adjustment "b"	.71	1.00											
Body Adjustment "a + b"	.94	.91	1.00										
Perceptual Index	-.57	-.59	-.63	1.00									
Intellectual Index	-.15	-.40	-.29	.60	1.00								
Mod. Intellectual Index	-.17	-.40	-.30	.70	.89	1.00							
Attention-Concentration	-.15	-.34	-.25	.43	.44	.46	1.00						
Verbal Comprehension 1	-.34	-.41	-.40	.48	.53	.48	.69	1.00					
Verbal Comprehension 2	-.19	-.31	-.27	.17	.45	.14	.43	.65	1.00				
Verbal Index	-.21	-.33	-.29	.23	.34	.20	.55	.83	.87	1.00			
Figure Drawing	.12	.25	.19	.20	.12	.13	.00	-.06	-.01	-.12	1.00		
Verbal Disembedding *	-.19	-.19	-.21	.38	.59	.53	.36	.65	.39	.47	.19	1.00	
Full Scale I.Q.	-.25	-.46	-.37	.50	.74	.63	.72	.90	.77	.84	.01	.68	1.00

NOTE: These correlations are rounded to 2 places.

*reported in reciprocals

TABLE XX
CORRELATION MATRIX
PROTESTANT SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Information	Comprehension	Arithmetic	Similarities	Vocabulary	Picture Completion	Picture Arrangement	Block Design	Object Assembly	Coding	Embedded Figures	Verbal Disembedding	Figure Drawing
Body Adjust. "a"	1.00														
Body Adjust. "b"	.71	1.00													
Information	-.13	-.29	1.00												
Comprehension	-.03	-.23	.52	1.00											
Arithmetic	-.35	-.38	.35	.12	1.00										
Similarities	-.37	-.40	.75	.55	.34	1.00									
Vocabulary	-.53	-.50	.58	.61	.43	.78	1.00								
Picture Compl.	-.09	-.22	.45	.29	-.04	.40	.37	1.00							
Picture Arrange.	-.03	-.29	.44	.20	.03	.35	.37	.25	1.00						
Block Design	-.19	-.46	.34	.07	.46	.33	.14	.03	.25	1.00					
Object Assembly	-.14	-.28	.29	-.01	.28	.41	.18	.27	.38	.64	1.00				
Coding	.08	-.17	.43	.47	.32	.37	.38	.28	.26	.28	.34	1.00			
Embedded Figures*	-.20	-.25	.16	.08	.41	.34	.17	.03	.19	.69	.60	.23	1.00		
Verbal Disembed.*	-.19	-.19	.62	.22	.30	.67	.48	.40	.53	.37	.59	.28	.33	1.00	
Figure Drawing	.12	.25	-.23	-.11	.01	-.06	-.12	-.03	.01	.02	.16	-.02	.31	.19	1.00

NOTE: These correlations are rounded to 2 places.

*reported in reciprocals

TABLE XXI
CORRELATION MATRIX
JEWISH SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Body Adjustment "a+b"	Perceptual Index	Intellectual Index	Mod. Intellectual Index	Attention-Concentration	Verbal Comprehension 1	Verbal Comprehension 2	Verbal Index	Figure Drawing	Verbal Disembedding	Full Scale I.Q.
Body Adjustment "a"	1.00												
Body Adjustment "b"	.50	1.00											
Body Adjustment "a + b"	.84	.89	1.00										
Perceptual Index	-.72	-.71	-.83	1.00									
Intellectual Index	-.45	-.34	-.45	.65	1.00								
Mod. Intellectual Index	-.47	-.30	-.44	.65	.91	1.00							
Attention-Concentration	-.12	-.32	-.26	.36	.43	.39	1.00						
Verbal Comprehension 1	-.08	-.25	-.20	.42	.35	.31	.56	1.00					
Verbal Comprehension 2	-.16	-.26	-.24	.31	.55	.30	.29	.52	1.00				
Verbal Index	-.09	-.22	-.18	.25	.31	.19	.28	.72	.86	1.00			
Figure Drawing	-.25	-.16	-.24	.38	.38	.41	.03	.01	.03	-.03	1.00		
Verbal Disembedding *	-.15	-.12	-.16	.12	.14	.12	.45	.39	.15	.24	.06	1.00	
Full Scale I.Q.	-.27	-.37	-.37	.55	.76	.63	.62	.78	.81	.76	.20	.34	1.00

NOTE: These correlations are rounded to 2 places. *reported in reciprocals

TABLE XXII
CORRELATION MATRIX
JEWISH SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Information	Comprehension	Arithmetic	Similarities	Vocabulary	Picture Completion	Picture Arrangement	Block Design	Object Assembly	Coding	Embedded Figures	Verbal Disembedding	Figure Drawing
Body Adjust. "a"	1.00														
Body Adjust. "b"	.50	1.00													
Information	-.08	-.19	1.00												
Comprehension	-.05	-.11	.30	1.00											
Arithmetic	-.16	-.21	.36	-.02	1.00										
Similarities	.05	-.15	.47	.40	.18	1.00									
Vocabulary	-.05	-.20	.46	.36	.37	.55	1.00								
Picture Compl.	-.24	-.27	.23	.29	.13	.23	.38	1.00							
Picture Arrange.	-.12	-.07	-.05	-.05	-.03	.10	.19	.30	1.00						
Block Design	-.50	-.23	.07	.01	.26	-.01	.06	.35	.15	1.00					
Object Assembly	-.30	-.30	.25	.03	.37	.34	.41	.38	.14	.56	1.00				
Coding	-.02	-.26	.19	.02	.16	.12	.18	.37	-.04	.13	.29	1.00			
Embedded Figures*	-.37	-.28	.18	0.00	.26	.20	.25	.36	.16	.53	.53	.12	1.00		
Verbal Disembed.*	-.15	-.12	.35	.11	.30	.19	.17	.11	.06	-.04	.28	.38	.04	1.00	
Figure Drawing	-.25	-.16	.06	-.23	-.06	.01	.15	.18	.28	.30	.43	.10	.43	.06	1.00

NOTE: These correlations are rounded to 2 places.

*reported in reciprocals

TABLE XXIII

CORRELATION MATRIX
 WITHIN--TOTAL SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Body Adjustment "a+b"	Perceptual Index	Intellectual Index	Mod. Intellectual In.	Verbal Comprehension 2	Verbal Index	Figure Drawing	Full Scale I.Q.
Body Adjustment "a"	1.00									
Body Adjustment "b"	.60	1.00								
Body Adjustment "a + b"	.89	.90	1.00							
Perceptual Index	-.75	-.84	-.89	1.00						
Intellectual Index	-.27	-.57	-.48	.64	1.00					
Mod. Intellectual Index	-.15	-.46	-.35	.53	.90	1.00				
Verbal Comprehension 2	-.24	-.46	-.40	.42	.51	.33	1.00			
Verbal Index	-.16	-.29	-.26	.28	.26	.31	.81	1.00		
Figure Drawing	-.36	-.50	-.49	.58	.60	.57	.28	.16	1.00	
Full Scale I.Q.	-.21	-.47	-.39	.51	.72	.80	.65	.74	.50	1.00

NOTE: These correlations are rounded to 2 places.

TABLE XXIV

CORRELATION MATRIX
 WITHIN--TOTAL SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Information	Comprehension	Vocabulary	Picture Completion	Block Design	Object Assembly	Embedded Figures	Figure Drawing
Body Adjustment "a"	1.00									
Body Adjustment "b"	.60	1.00								
Information	-.27	-.30	1.00							
Comprehension	-.11	.01	.48	1.00						
Vocabulary	.04	-.29	.62	.46	1.00					
Picture Completion	-.33	-.48	.07	.05	.01	1.00				
Block Design	-.13	-.56	.38	.21	.28	.20	1.00			
Object Assembly	-.13	-.27	.33	.07	.27	.29	.59	1.00		
Embedded Figures *	-.23	-.42	.30	-.12	.14	.37	.70	.51	1.00	
Figure Drawing	-.36	-.50	.19	.01	.30	.36	.52	.49	.50	1.00

NOTE: These correlations are rounded to 2 places. *reported in reciprocals

TABLE XXV

CORRELATION MATRIX
WITHIN--JEWISH SAMPLE

	Body Adjustment "a"	Body Adjustment "b"	Body Adjustment "a+b"	Perceptual Index	Intellectual Index	Mod. Intellectual In.	Verbal Comprehension 2	Verbal Index	Figure Drawing	Full Scale I.Q.
Body Adjustment "a"	1.00									
Body Adjustment "b"	.65	1.00								
Body Adjustment "a + b"	.91	.91	1.00							
Perceptual Index	-.76	-.85	-.89	1.00						
Intellectual Index	-.15	-.55	-.39	.60	1.00					
Mod. Intellectual Index	-.03	-.38	-.23	.46	.88	1.00				
Verbal Comprehension 2	-.10	-.25	-.20	.27	.41	.17	1.00			
Verbal Index	-.06	-.00	-.04	.11	.16	.22	.76	1.00		
Figure Drawing	-.30	-.38	-.39	.48	.52	.47	.10	-.02	1.00	
Full Scale I.Q.	-.07	-.28	-.19	.40	.72	.82	.48	.64	.43	1.00

NOTE: These correlations are rounded to 2 places.

TABLE XXVI

CORRELATION MATRIX
WITKIN--JEWISH SAMPLE

	Body adjustment "a"	Body Adjustment "b"	Information	Comprehension	Vocabulary	Picture Completion	Block Design	Object Assembly	Embedded Figures	Figure Drawing
Body Adjustment "a"	1.00									
Body Adjustment "b"	.65	1.00								
Information	-.23	-.12	1.00							
Comprehension	-.06	-.04	.41	1.00						
Vocabulary	.23	.07	.51	.44	1.00					
Picture Completion	-.25	-.52	.03	-.01	-.02	1.00				
Block Design	-.05	-.47	.32	.13	.12	.14	1.00			
Object Assembly	0.00	-.21	.35	-.02	.31	.17	.58	1.00		
Embedded Figures *	-.21	-.40	.35	-.11	.12	.39	.70	.54	1.00	
Figure Drawing	-.30	-.38	.13	-.11	.18	.31	.40	.42	.46	1.00

NOTE: These correlations are rounded to 2 places.

*reported in reciprocals

APPENDIX D
 ADDITIONAL ANALYSES OF DATA

Co-Variance of Sum of Seven Versus Intellectual Index

In the comparison of the J and P groups on the Intellectual and Modified Intellectual Indices, it was suspected that the difference between the groups might be due to the somewhat lower I.Q. present in the J group. Consequently, it was felt, that an analysis of co-variance could be used to eliminate the error factors attributable to the regression of the Intellectual and Modified Intellectual Indices on the sum of the balance of the W.I.S.C. subtests. The results (see Tables XXVII and XXVIII) show that the difference between the groups remains significant even after the removal of these error terms.

TABLE XXVII
 SUM OF SEVEN VS. MODIFIED INTELLECTUAL INDEX

	<u>J GROUP</u>	<u>P GROUP</u>
MEAN	-.664	1.106
Degrees of freedom in the numerator	=	1
Degrees of freedom in the denominator	=	77
F = 10.8314	prob. $<$.01	

It should be noted that the analysis of co-variance was performed with a computer program which admits unequal

set sizes and missing data points. This program calculates co-variance, variance and means individually, using all available points for the statistic being calculated, and calculates the degrees of freedom separately for each statistic.

The reported means represent deviations from the regression line, with 1.00 equal to $1/3$ of a standard deviation.

TABLE XXVIII
SUM OF SEVEN VS. INTELLECTUAL INDEX

	J GROUP	P GROUP
MEAN	-.435	.726
Degrees of freedom in the numerator	= 1	
Degrees of freedom in the denominator	= 77	
F = 6.8857	prob. $< .02$	

Co-Variance of Sum of Seven Versus Combined Indices

As indicated in the text on page 128, partialing out the effect of the verbal variables still leaves significant correlations between the indices which together constitute the measures of field-dependence.

The question, however, of the co-variance of general intelligence and field-dependence is best answered by an analysis of co-variance on the combined indices of field-dependence. On page 115, it was reported that the combination of the Perceptual, Modified Intellectual Indices and Figure Drawing scores resulted in a most significant

difference between the Jewish and white Anglo-Saxon Protestant groups. An analysis of the regression of general intelligence, as measured by the seven subtests of the Wechsler Intelligence Scale for Children, not included in any of these indices, upon the results of the combination of these field-dependence scores reveals that the difference between the two experimental groups cannot be attributed to general intelligence.

After removing the error term attributable to general intelligence we remain with a difference between the groups as follows: J group, mean equal -2.761, P group, mean equal 4.149 (one point equals one-third of a standard deviation).

These differences yield an F test score of 27.6216, with 1 and 72 degrees of freedom. The significance of this difference is far beyond the .01 level.

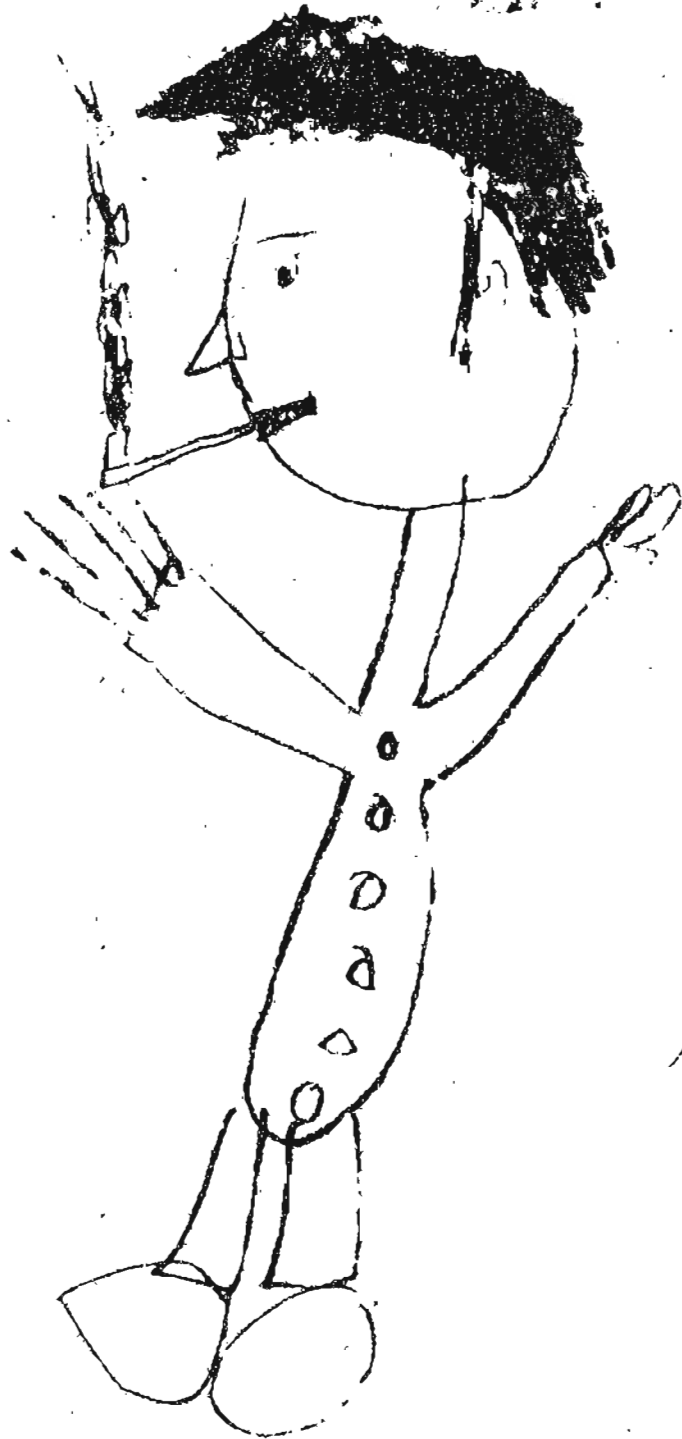
Comparison of Monolingual and Bilingual Jewish Children

On page 105, the relative weakness of the Jewish group on the W.I.S.C. subtests of Information, Vocabulary, and Picture Arrangement, is discussed. The hypothesis was put forth that weakness on these tests might be a correlate of bilingualism, all of this group being bilingual, at least in school. On the basis of this assumption, a comparison was made of the 24 bilingual and 25 monolingual children within the Jewish group. While a trend towards

relative weakness among the bilinguals is noted, T test analyses, however, fail to substantiate any significance in the difference between the group mean scores on these tests.

TABLE XXIX
 SCALED SCORES
 MONOLINGUAL-BILINGUAL JEWISH CHILDREN

VARIABLE	MONOLINGUALS	BILINGUALS	DIFFERENCE
Information	12.56	12.54	-0.02
Vocabulary	12.92	12.63	-0.29
Picture Arrangement	11.16	10.54	-0.62
Full Scale I.Q.	116.96	113.32	-3.76



Mad

FIGURE 2

TYPICAL JEWISH FIGURE DRAWING RATED 3
MALE

57
12/18

Lady

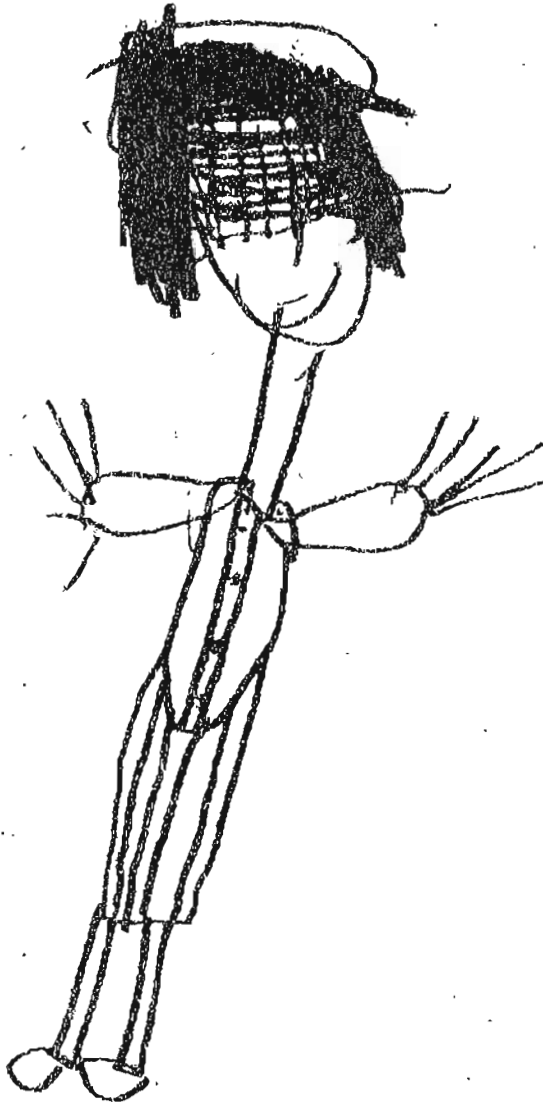


FIGURE 2

TYPICAL JEWISH FIGURE DRAWING RATED 3
FEMALE

12/18



FIGURE 3

TYPICAL PROTESTANT FIGURE DRAWING RATED 6
MALE



FIGURE 4

TYPICAL PROTESTANT FIGURE DRAWING RATED 6
FEMALE