

Personality, Motivation, and Second Language Learning

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Research by Witkin (1972, 1976) and his associates has corroborated the stable and pervasive nature of degree of differentiation in many levels of psychological function. An examination of possible relationships between extremes of differentiation (field dependence/independence), which suggest contrasting personality syndromes, and motivation in second language learning (integrative motive) was carried out to identify personality and perceptual consistencies in the dynamics of the second language acquisition process, and to test further the general claim made by Witkin. The importance of the integrative motive in second language acquisition has been discussed previously by Gardner et al. (1970). Of 414 university undergraduates involved in the present study, 236 students who scored at either extreme of the differentiation continuum, measured by Thurstone's Closure Flexibility Test, were compared on scales for integrativeness. As hypothesized, T-tests indicated field dependent students were consistently and significantly more integratively motivated.

Une recherche menée par Witkin (1972, 1976) et ses collaborateurs a confirmé le caractère stable et très répandu du degré de différenciation à plusieurs niveaux de la fonction psychologique. Dans le but d'identifier les éléments constants qui se manifestent chez l'individu au chapitre de la personnalité et des perceptions dans la dynamique du processus d'apprentissage d'une deuxième langue, et pour vérifier davantage l'hypothèse de Witkin, on a entrepris une étude des rapports pouvant exister entre les extrêmes de différenciation (dépendance/indépendance du milieu), qui suggèrent des tendances opposées dans la personnalité des individus, et de leur motivation à apprendre une deuxième langue (volonté d'intégration). Gardner (1970) et ses collaborateurs ont déjà traité de l'importance de cette motivation dans le cadre de l'apprentissage d'une deuxième langue. Quatre cent quatorze étudiants universitaires du premier cycle ont participé à cette étude les résultats du Thurstone's Closure Flexibility Test en plaçant 236 aux deux extrêmes du continuum de différenciation. Une comparaison de ces derniers au niveau de l'intégration a démontré que, conformément à l'hypothèse, les étudiants dépendants de leur milieu manifestaient une tendance générale et significative à se montrer motivés.

The main intention of this study was to examine the relationship between field dependence/independence (Witkin, Dyk, Faterson, Goodenough, & Karp, 1972) and important motivational factors (Gardner & Lambert, 1972; Gardner & Smythe, 1975) in second language learning. This analysis promised to disclose relationships suspected between personality and motivation in the dynamics of the second language acquisition process. An underlying objective was to test further the theory of Witkin et al. (1972) in terms of the pervasive quality assigned to degree of psychological differentiation (field dependence/independence) and its expected consistency throughout all levels of psychological function. It was esti-

mated that if degree of psychological differentiation is indeed a consistent feature of behavior then it should be relevant to an enterprise as complex as second language acquisition. For reasons which will become obvious, however, the results of this study and their implications are currently confined to the acquisition of the second language in a bilingual context.

The differentiation theorists themselves (Witkin et al., 1972) warn against hasty conclusions regarding the relevance of field dependent/independent traits to language acquisition. In assessing their own findings in this area they have attributed lingering uncertainties to "the gross way in which verbal expressiveness has been explored in our studies thus far" (p. 198). Research in the narrower area of possible relationships between field dependence/independence and second language learning has not suggested a definitive conclusion. Studies have either yielded unsupportive statistical results (e.g., Lee, 1974) or have produced inconsistent evidence of a relationship between the perceptual/analytic skills involved in field independence and certain specific cognitive skills essential to aspects of language learning (e.g., DeFazio, 1971; Naiman, Fröhlich, Stern, & Todesco, 1978; Tucker, Hamayan, & Genesee, 1976). Consequently, the decision was made to pursue a new direction by examining possible relationships between field dependence and aspects of motivation which are involved in second language learning.

In implementing this decision, the measure of field dependence/independence is accepted as a reasonable estimate not only of certain perceptual skills but also of the absence or presence of those personality characteristics subsumed under the higher-order theoretical construct of degree of psychological differentiation. For example, behavioral factors related to the dependent/independent perceptual styles have been found to form fairly tight personality syndromes which may be summarized under the categories of absence or presence of segregation of the self in interpersonal relations (Witkin & Goodenough, 1976).

It appeared, therefore, that the discovery of relationships between field dependence/independence and motivation, with specific application to second languages, would offer substantial improvement in the understanding of the conditions of second language learning, particularly in view of the relationship which has been demonstrated previously between motivation and achievement in second language learning. Gardner and Lambert (1972) refer to a number of studies showing repeated evidence that second language learning is associated with two independent factors — the aptitudinal/intellectual factor and the attitudinal/motivational factor. Results supporting the importance in second language achievement of specific motivational trends such as the "integrative motive" have been discussed (e.g., Gardner & Lambert, 1972; Gardner & Smythe, 1975). The integrative motive has been defined variously throughout the empirical development of the theory. In Gardner and Smythe (1975, pp. 7-12) it is described as a motivational complex inclu-

sive of an integrative orientation, a strong motivation and desire to learn the target language (in this case French), positive attitudes towards the second language group, positive attitudes towards learning the second language, and positive attitudes towards the second language course and the teacher. These variables have all been found regularly on the same factor with positive loadings. The integrative orientation itself has been defined as a psychological outreach towards the members of the second language group (Gardner & Smythe, 1975). Reasons given for wanting to learn the target language include the desire for interaction and identification with group members and, in extreme cases, the wish to become a member of the group. Among the many relevant studies conducted in Canada, the U.S.A., the Philippines, England, and India which have been discussed previously (Gardner, 1975; Gardner & Santos, 1970; Gardner & Smythe, 1975; Lambert & Gardner, 1959; Lambert, Gardner, Barik, & Tunstall, 1963; Lukmani, 1972; Spolsky, 1969), this specific orientation has loaded regularly on the attitudinal/motivational factor related to achievement and/or has displayed positive correlations with oral skills in second language learning.

The persistence of this tendency has become noteworthy in the literature. Further attention to the phenomena within Gardner's theoretical/empirical construct has given support to the following conclusions: (a) that motivation *per se* is a major predictor of achievement in French as a second language and that it is the single best predictor of both "Grades in French" and "Behavioral Intention to Continue Studying French" (Gardner, Note 1), (b) that a direct relationship between factors such as the integrative orientation to second language learning and achievement is questionable; rather, specific orientations and attitudes (including the integrative orientation) contribute to the second language learning process by acting as motivational supports, that is, they help to sustain the necessary long-term effort. Gardner (1978, Note 1) recommends these conclusions after reference to the systematic use of partial and semi-partial correlation procedures based on standardized scores from bilingual and monolingual regions in Canada. The relevance of motivation or, specifically, the integrative motive to second language learning, therefore, not only has been illustrated, but the precise role of the affective variables within Gardner's theory appears to be assuming greater clarity.

The variable known as the instrumental orientation is defined as an orientation "which de-emphasized the interest in becoming closer to the other group and focused instead on what a knowledge of the language could do for the individual without involving him directly with the group" (Gardner, 1975, p. 25). It was not regarded as an essential part of the integrative motive in this study although it has, on occasion, been accepted as a member variable of the motivational complex, due largely to its sporadic appearance on this factor. Positive correlations have been

found between the integrative and instrumental orientations. Smythe, Stennett, and Feenstra (1972) argue that they are not independent. However, theoretically, the main thrust of the integrative motive is carried by the integrative component itself. Empirically, ratings of integrativeness tend to correlate more highly with achievement than ratings of instrumentality. This is confirmed by Gardner (1975), who adds that the important distinction is not which orientation is associated with achievement, but which provides for the stronger more lasting motivation. It is evident from the literature that the integrative orientation is expected to have more lasting effects (e.g., Gardner, 1978, p. 10; Gardner & Lambert, 1972, p. 12).

The claim that attitudes/motivation are related to second language acquisition has not remained unchallenged. In this respect Chihara and Oller (1978) and Oller and Perkins (1978) have queried the utility of the direct-type question adopted by Gardner and Lambert as a suitable technique for eliciting attitude information and claim that relationships exhibited so far may be spurious. Oller and Perkins suggest sources of non-random, extraneous variance inherent to self-reported attitude data, namely, self-flattery, response set, and approval motive. However, Chihara and Oller have been forced to conclude that there does not appear to be any clear difference between the use of direct versus indirect questions in gathering attitude data. Moreover, Gardner (Note 2) has effectively shown that Oller and Perkin's speculations regarding specific sources of non-random extraneous variance are unsupported and unjustified. In particular, he has also presented material which invalidates their arguments concerning the effect of verbal intelligence as a confounding variable in effective measures.

In view of the precision evident in the theory of Gardner it seemed expedient to look for possible relationships between the field dependent/independent constructs and the integrative motive towards second language learning so that more of the psychological patterns within the process of second language acquisition might be explained.

This undertaking acquired theoretical justification from a comparative review of the theories of Witkin and Gardner. The precise personality characteristics associated with the perceptually field dependent person imply strong compatibility with the nature of the sociolinguistic task contained in the integrative orientation. In Witkin's theory the field dependent person demonstrates greater non-segregation of the self from the social field. Explicitly, field dependence now suggests absence of autonomy in interpersonal relations, the need to seek information from others in ambiguous situations, and the use of the prevailing social frame to define attitudes, beliefs, and feelings. In addition, the field dependent person has been described as warm, affectionate, tactful, accommodating, non-evaluative, and more socially outgoing and accepting of others than the extremely field independent person (Witkin & Goodenough, 1976).

In like manner, the integrative orientation towards second language learning, as explained by Gardner, assumes a basic desire and ability to identify the self with members of the second language group and to adopt their behaviors and patterns of thought. This orientation may therefore be interpreted as a task-specific expression of basic personality needs which reflect the field dependent disposition.

Even without such specific delineations regarding the characteristics of the field dependent personality and their obvious similarity with the requirements of the integrative task Witkin's theory supports a relationship between the two variables under discussion by virtue of principles outlined.

Witkin's "differentiation hypothesis" proposes that the development of differentiation, as one dimension of behavioral response, is an "organism-wide affair." In principle, degree of psychological differentiation or the complexity of the individual's psychological structure which determines his ability to analyse, integrate, and restructure experience is a high-order theoretical construct and is consistent across the various psychological domains including the intellectual, the emotional, or the social. One evidence of differentiation is the increased availability of and ability to use internal as opposed to external referents. This ability is expressed by a tendency to maintain a distinction between the object and its field, or to separate the self from the environment, and is described by reference to field independence or to the concept of self-nonself segregation. These concepts have been elevated to the status of second-order descriptors within the theoretical hierarchy (Witkin & Goodenough, 1976) and, like degree of differentiation, they are repeatedly evident in a number of more specific, identifiable responses.

The concept of field as used by Witkin was originally inspired by the gestalt school of thought and adheres to the fluid interpretation now accepted by cognitive field theory (c.f. Lewin, 1935); that is, the field is not restricted to either literal or metaphorical usage but refers to whatever is surveyed by the person behaving or to that environment (social, emotional, or otherwise) of which the various parts are potential predictors of the person's behavior. The field refers not only or even primarily to the figure-ground components of the physical environment but includes variables such as motives, beliefs, and goals (Witkin & Goodenough, 1976, pp. 21, 42).

In view of the tenets of Witkin's differentiation hypothesis, the expected consistency of degree of complexity and analytical ability across psychological functions, the superior location of field dependence/independence in the theoretical hierarchy, and the comprehensive interpretation given to the concept of reliance versus non-reliance on the field, it is considered more than possible that persons who are field dependent perceptually will also show tendencies towards non-discriminative social responses and allegiances. Prediction of a relationship between field

dependence and the more specific integrative orientation is therefore defensible.

There is, moreover, extensive empirical evidence (e.g., Witkin et al., 1972) of the validity of the differentiation hypothesis. Studies show that the tendency to rely on the field cuts across events and processes which are not psychologically identical, ranging from the purely perceptual to the social and reappearing even in the tendencies field dependent professionals display towards certain career decisions.

This paper suggests that as the focus and activities of the student convert the second language group and their behaviors into a significant part of his psychological field, the student himself being an entity within the total field, a strong integrative orientation may more reasonably be expected to develop for those students characterized by extreme field dependence or reliance on external referents. For such students the possibility of a general loss of distinction between the self and the social/linguistic field should be greater. It is not likely, however, that the extremely field independent person, prone to behavior patterns based on a well-conceptualized, exclusive, autonomous, and socially detached self will attempt to learn the second language for reasons implied by the integrative outlook.

Theoretically, the likelihood of a relationship between field dependence and the integrative orientation is intensified in a bilingual context. Here the existence of social ambiguities may be assumed and the urgency of acquiring accurate information through integration may be heightened for the field dependent person who is prone to rely on external sources of information to eliminate existing ambiguities (Witkin & Goodenough, 1976, p. 27).

To the extent that the integrative orientation is an essential ingredient of the integrative motive, a positive relationship may also be expected between field dependence and the total integrative motive. Moreover, correlations among the various attitudinal/motivational components of the integrative motive suggest a possible relationship between field dependence and each component variable. It is to be noted, however, that the positive relationships anticipated between field dependence and integrativeness are not necessarily expected to yield strong correlations between entire distributions. Theory does not support this. Although in principle the differentiation hypothesis assumes an underlying process of development toward greater psychological complexity marked by consistent progress in several areas of psychological function, the theory respects reality. Witkin et al. (1972, pp. 16, 17) argue that because any segment of behavior is the product of many determinants, the segments we may consider in search of concrete evidence of differentiation will each be influenced by many factors additional to degree of differentiation. High-order correlations between the various areas of psychological function affected by differentiation (self-nonsel segregation) are, therefore, not

inevitable. Rationally, however, significant differences in one function for extreme groups on another dimension may be expected. In addition to the preceding, research has shown (Witkin et al., 1972, pp. 174, 175) that only those individuals who are extremely field independent are expected to demonstrate tendencies towards isolationism, distance from others, lack of interest in others, and lack of empathy for people.

Based on these considerations, analyses of data were expected to demonstrate that (a) students who exhibit an extremely field dependent cognitive style are significantly more integratively oriented towards the learning of a second language than students who exhibit an extremely field independent cognitive style, and (b) extremely field dependent students will receive significantly higher scores than extremely field independent students on the attitudinal/motivational complex referred to as the "integrative motive."

METHOD

Sample

The sample, a total of 442 male and female university undergraduates in Ontario registered for courses in French as a second language, was taken from one university. However, there was marked evidence of heterogeneity with respect to ethnic background. In order to eliminate possible bias vis-à-vis the dependent variables, data for only 414 students who described themselves as non-French and as second or third-generation Canadians resident in Ontario for at least three years were retained for analysis. A non-French student was defined as having no significant competence in French as a second language and as living in a home where the French language was not used.

Instruments

The two instruments used in the collection of data were Thurstone's Closure Flexibility Test as a measure of field dependence/independence and an attitude questionnaire based on the complex of variables included by Gardner in the integrative motive.

The mental ability measured by the Thurstone Closure Flexibility Test has been defined as the ability to hold a configuration in mind despite distraction. The test has been used by Witkin as a measure of field dependence/independence and has been found by Podell and Phillips (1959) to have a .77 correlation with Witkin's Embedded Figures Test. The test description records high reliability figures (Thurstone, a split-half reliability of .78, and Pemberton, a corrected split-half reliability of .94).

The battery of attitudinal/motivational scales relevant to Gardner's theory and presented in the questionnaire used in this study is described

in Gardner and Smythe (1975). Items from all scales used were randomly presented together. The five scales used to test the hypotheses were the integrative orientation, attitudes towards learning the second language, attitudes towards the second language group, desire to learn French, and motivational intensity. A measure of the integrative motive was computed using the sum of the Z scores for these scales.

Those items on each scale which were found by Gardner and Smythe (1975) during a validation study to be more reliable measures are indicated in their report. In the present study, however, the decision was made to use the version of the integrative orientation scale which contained all eight items since the complete set appeared to form a better test of the present hypotheses. To maintain a check on the appropriateness of this decision, a subscale for integrative orientation, including only those items recommended by Gardner, was generated during the analyses of data and used as an additional test of hypothesis (a).

Kuder Richardson reliability coefficients and item-total correlations as reported by Gardner and Smythe (1975) are generally satisfactory. Kuder Richardson coefficients found subsequently by Gayle (1976) for the integrative orientation (complete scale), attitudes towards learning the language, attitudes towards the second language group, desire to learn French, and motivational intensity were .79, .90, .83, .81, and .76 respectively.

Procedure

Data were collected in March-April 1976. The hypotheses were tested by means of a *t*-test for each of three dependent variables — the integrative orientation (shortened version, to be referred to henceforth as the integrative orientation 1), the integrative orientation (complete scale), and the integrative motive.

In keeping with tendencies reported by Witkin et al. (1972) for individuals acquiring extreme scores on the perceptual scale to vary significantly as groups with respect to a number of personality dimensions, and in view of the apparent theoretical relevance of some of these personality traits to the concept of integration, selection was made of those students to be included in the final analyses by reference to the 30% cut-off points at both ends of the field dependence/independence distribution.

RESULTS

Both hypotheses stated previously were supported by the data collected.

Reference to Table 1 indicates that the extremely field dependent group attained means that were consistently higher than those of the extremely field independent group with probability levels smaller than .05 for the integrative orientation 1, the integrative orientation, and the integrative motive.

TABLE 1
*T-Test of Differences Between Means
for Extremely Field Dependent/Independent
Groups on Attitudinal/Motivational Scales*

<i>Groups</i>	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Integrative orientation 1						
F.D.	116	22.68	4.69	2.62	234	.01
F.I.	120	21.11	4.54			
Integrative orientation						
F.D.	116	39.19	8.63	2.41	234	.02
F.I.	120	36.48	8.64			
Attitudes towards French Canadians						
F.D.	116	59.32	10.97	2.39	234	.02
F.I.	120	55.93	10.83			
Attitudes towards learning French						
F.D.	116	54.46	12.22	2.11	234	.04
F.I.	120	51.01	12.91			
Motivational intensity						
F.D.	116	21.38	3.58	2.20	234	.03
F.I.	120	20.48	2.69			
Desire to learn French						
F.D.	116	24.09	3.80	2.85	234	.01
F.I.	120	22.74	3.49			
Integrative motive						
F.D.	116	.70 ^a	4.14	2.94	234	.00
F.I.	120	— .82 ^a	3.80			
Instrumental orientation						
F.D.	116	33.80	7.57	— .97	234	.33
F.I.	120	34.71	6.80			

^aStandard scores

In Table 2 it may be seen that none of the dependent variables was appreciably skewed. Application of *t*-tests to the data was therefore reasonably valid.

TABLE 2
Descriptive Statistics for Variables Analysed

<i>Variable</i>	$\bar{X}$	<i>SD</i>	<i>Observed Minimum</i>	<i>Observed Maximum</i>	<i>Skewness</i>
Int. Ori. 1	22.01	4.63	6.00	28.00	— .78
Int. Ori.	37.95	8.59	10.00	56.00	— .32
Int. Mot.	.00 ^a	4.06	—14.78 ^a	7.93 ^a	— .50
Inst. Ori.	34.23	7.39	14.00	54.00	— .22
F.D./F.I.	73.96	25.89	—3.00	142.00	— .13

NOTE: *n* = 414

^aStandard scores

DISCUSSION

The first hypothesis, that field dependent students would be significantly more integratively oriented than their extreme counterparts, was supported by the data whether the dependent variable was measured by the scale "integrative orientation 1" or the more extensive scale referred to as "integrative orientation." Similarly, the second hypothesis, that field dependent students would receive significantly higher scores on the more elaborate motivational complex known as the integrative motive, was supported by the analysis. These results suggest that field dependence is an important discriminant in the second language learning process.

It is not clear from this study, however, whether the differences obtained were due simply to a natural predisposition of the field dependent person to rely on the second language group as a part of his field, or whether additional contextual circumstances were in operation. In the first instance, the field dependent person's basic inclination to integrate may have been intensified by the nature of the Ontarian context and by his greater need to acquire information in an ambiguous bilingual setting. Second, the field dependent's basic tendencies to adopt prevalent attitudes may also have been directed by salient and pervasive attitudes to the second language group in the socio-political Ontarian context. For example, the Canadian federal government, since the passing of the Official Languages Act in 1969, has been actively promoting the creation of a bilingual civil service, and has been encouraging greater integration between the English and French groups. Such an influence would have affected the receptive field dependent person. Finally, enrolment on a full-time basis in a bilingual university would quite likely have motivated

students to express an urgent need for integration. It seems a question of interest, therefore, whether or not the scores for field dependent persons would have been as high without these additional factors which could have intervened as contextual or cultural supports of an integrative motive that may ordinarily have been less acute.

The results presented do not pretend to demonstrate a strong relationship between the complete distributions for the integrative motive/orientation and psychological differentiation. As explained previously, such a relationship would be contrary to theoretical expectation. In fact, the correlation between field independence/dependence and each of the three variables is in no case higher than $-.13$. The negative relationship was, of course, anticipated.

The results of this study encourage the extension of this line of research to monolingual second language learning contexts, that is, investigation of the dynamics between substructures of psychological differentiation (field dependence/independence) and motivation in second language learning. Indeed, it is possible that while field independence relates to many cognitive prerequisites in the second language learning process, as suggested in previous research referred to earlier, it is field dependence which provides much of the motivational support for the continuation of the endeavor. This possibility is heightened in view of the fact that analyses of data showed significant differences on both measures of integrative orientation as well as on the more complex integrative motive. Additional computations reflected in Table 1 show that field dependent students also received higher scores than field independent students on each of the remaining components of the integrative motive at significant probability levels, p always $< .05$, and that standard deviations for field dependent/independent groups were smaller in the case of the integrative orientation 1, desire to learn French and motivational intensity, that is, those variables that may well form the core of the integrative motive.

The results reported here lead to the conclusion that in bilingual situations second language teachers should develop distinct strategies for use with students who are either markedly field dependent or extremely field independent. In the case of the field dependent student, for example, emphasis should be placed on exploiting his motivational readiness for second language learning and on creating situations in which favorable orientations already possessed vis-à-vis the target group may be further stimulated to facilitate the long-term pursuit of knowledge and skills. He should, therefore, be allowed every opportunity to establish close "on the street" contact with native second language speakers (Macnamara, 1973) — an important means of motivational reaffirmation for the integratively oriented type of student with positive attitudes (Gardner, 1960).

It was noted in subsequent analyses of data from the same sample that absence of significant differences on the instrumental orientation (see

Table 1) distinguishes it from the variables in the integrative motive and tends to validate the rationale behind the present hypotheses, providing additional evidence that the results for field dependent/independent students on the integrative motive/orientation are not fortuitous.

To conclude, the results of this study have furnished further evidence that degree of psychological differentiation tends to be consistent on many levels of behavior. In this sense the theory of Witkin et al. (1972) receives renewed confirmation and elaboration as the pervasive effects of differentiation previously hypothesized become more evident. This understanding allows, on a more explicit level, an improved conceptualization of the dynamics of the second language learning process at least in the bilingual context. It is suggested that, in such a context, personality (field dependence/independence), by virtue of a relationship with motivation, plays a definite role in the total language acquisition process. Further, in view of previous (though inconsistent) findings indicating relationships between field independence and cognitive skills in second language proficiency, this study implies that the relationship between degree of psychological differentiation and the second language acquisition task is multi-factorial in nature. Subject to the contextual restraints imposed on this study extreme field dependence, no less than field independence, may now be regarded as a possible asset in second language acquisition.

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