

# PERSONALITY DEVELOPMENT OF MEXICAN SCHOOL CHILDREN: A RESEARCH PROJECT<sup>1</sup>

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## MEXICO

In 1963 when we started with the systematic program of research entitled, "Personality Development of Mexican School Children, for all practical purposes psychological research did not exist in Mexico. We wanted, therefore, to produce a project having social, educational, and professional as well as scientific impact.

Elsewhere we have described the project in detail (2) (5) (6). Its main single purpose has been to study, utilizing the longitudinal overlapping research design illustrated in Table I, the personality development of Mexican school children from the first through the twelfth grade.

TABLE 1

Overlapping Longitudinal Design for Six Years of Repeated Testing in Austin and Mexico City

Group	N	Initial Age	School Grades Covered														
			1	2	3	4	5	6	7	8	9	9	10	11	12		
I	150	6.7															
II	150	9.7															
III	150	12.7															

To the sample of 450 children described in Table I, which was selected after a painstaking demographic study (16) of the three school systems characteristic of the City of Mexico, the battery of

TABLE 2

Tests Administered to Children in Mexico City in 1965

Test	Form	SCHOOL GRADE		
		1	4	7
Holtzman Inkblot Technique	A	A	A	A
Human Figure Drawing	x	x	x	x
Time Estimation	x	x	x	x
Object Sorting Test	x	x	x	x
WISC, all subtests	x	x	x	x
Embedded Figures Tests		x	x	x
Conceptual Style Test	x	x	x	x
Visual Fractionation Test	x	x	x	x
Test Anxiety Scale for Children	x	x	x	x

<sup>1</sup>Adapted from an invited address to a symposium entitled "Psychological Research in the Developing Countries," XIX International Congress of Psychology, London, England, 1969.

tests described in Table II was applied individually and at regular intervals of one year.

In 1962, Wayne H. Holtzman applied for a grant from the U. S. Public Health Service (12) for a project entitled "Inkblot Perception and Personality," and Diaz-Guerrero in 1963 applied for support from the Foundations' Fund for Research in Psychiatry to carry out a research project entitled, "Personality Development of Mexican School Children" (2). Beyond the interesting characteristic of mirroring with part of our sample the identical study of child development by Holtzman in the U. S. and becoming, as it has been reported elsewhere (13), a model for control of variables in a cross cultural study of child development, the Mexican project had many other goals of its own to fulfill. To clarify we shall describe the goals of the project under three headings, i.e., psychological research goals, teaching of research goals, and professional and pragmatic goals.

*Psychological Research Goals.* Theoretically, it was of interest to us to start a systematic and longitudinal study of an adequate sample of Mexican school children in the City of Mexico. No such study had previously been undertaken. Thus, almost every single finding from this particular study would be a discovery. We were fascinated from the start with the potential theoretical implications to be derived from the fact that part of our sample mirrored so well the most crucial variables of Holtzman's sample in Austin, Texas. In addition to the opportunity to discover the characteristics of the personality development of Mexican school children, we had all the advantages of comparative cross cultural psychology. Moreover, we were not totally naive about the effects of culture upon personality. We had already begun some theoretical efforts that have since crystallized in the development of a series of cross cultural hypotheses (3) (4) (7) (8) (9). We had here, then, an opportunity to explore them; i.e., to determine unique characteristics and their development through time that might be accounted for by the Mexican culture in contradistinction with those that might be typical of the U. S.

The fact that the battery of tests included several dozen variables tapping the intellectual, cognitive and personality development of children would further provide the possibility of establishing locally, year after year, and through the entire study, the intercorrelations of all of these variables in the light of the relevant theoretical implications.

Finally, there is the critical theoretical question as to the structure of the intellect. Would a factor analysis of Mexican children's WISC scores give a different factorial structure than that based on data from U. S. children? And what about the change of factorial

structure through time locally and in comparison with Holtzman's findings? There is even the possibility of beginning to discover in the data the fundamental factors that would correlate with the differential responses by Mexican and U. S. children through the battery of tests. This rich potential for a purely scientific theoretical analysis was another of the goals of the project.

*Teaching of Research Goals.* Here again, we had an open field. Perhaps over-ambitiously, we decided that every one of the members of the research team—each of them with training at the start equivalent to a little less than that of a U. S. graduate—should participate in all of the stages of development of the research.

Thus, all of them intervened in the development of the demographic questionnaire and in its pilot testing, and became aware, for instance, that six-year-olds could not reply to a group-administered demographic questionnaire no matter how simple we tried to make it. They found that at least one assistant had to work with a group of four children, clarifying the questions and checking over the answers. Each of the student-researchers was trained for several months in the application of each one of the tests, and all traveled to the U. S. where assistants from the two research teams observed each other in the application of tests. All the assistants from both teams participated in long seminars, where scoring of the tests was standardized; all applied the tests, scored the tests, tabulated the results, learned to code them, punched the coded results onto IBM cards, learned to sort cards with given specific information from a deck, and attended classes where statistical analyses of results were illustrated. All had access to computer results and participated in their interpretation, and all had the chance to co-author papers reporting results of the research. Only a few of them, because of limitations on time and facilities, were able to learn the basics of computer programming, and only very few were sufficiently exposed to a good general sample of experimental designs and statistical methods and procedures for handling data. In the five and one-half years that have elapsed since the initiation of the research, more than two dozen people have, in one way or another, actively participated in the research. Of these eight have acquired a good degree of sophistication and will continue in a career of research. Many of the others have become sufficiently acquainted with the procedures as to be able to carry out a number of less complex research projects and/or the tasks of the professional psychologist with a much higher degree of scientific sophistication. Almost all of our assistants, even those who remained with us for no more than two years, have been able to present a thesis for a degree with data obtained from this research.

*Professional and Pragmatic Goals.* One of the main pragmatic goals has been to adapt and standardize for Mexico selected tests of the battery. This—the determination of baselines—is conceived as a service for the professional psychologist and the future researcher in Mexico. It is expected that the careful exploration of so many variables and their developmental curves with an adequate sample will be of much value to teachers, educators, and to the Ministry of Education.<sup>2</sup> It is within the pragmatic and the professional goals that we should mention the main “mistique” of this study. We have consistently maintained that it is through rigorous scientific research that we can demonstrate if there is a basis of fact for a nationalistic psychology. We have advanced our belief that indeed there is a need, particularly in the psychology of personality, for the development of autochthonous theories. We have publicly held the expectancy—which at the present time begins to become a reality—that we shall be able to extricate from the total effort certain variables that may be typical of the Mexican population, and which might provide clues to discovering given characteristics of a particular culture. Such characteristics, in turn, might be explanatory of a large number of behaviors hitherto misunderstood or not understood at all, and thus might allow for the possibility of programs being designed for the improvement and/or modification of such behaviors if they interfere with the development of the potential of individuals. For example, we have discovered that consistently through the ages, and through all but one of the subtests of the WISC, the Mexican male of the same age, social status, and school grade, comes out ahead of his female counterpart. Here we find an area where the talent and the intellectual potential of the female is for some yet unspecified reason being smothered by certain characteristics of the Mexican culture. We are, however, beginning to understand why this happens in the Mexican culture.

#### SOME RESULTS

*Results bearing upon the theoretical goals.* Some published reports (11) (14) (15) (17) (18), and others in press, show that a large number of statistically significant differences are to be found between the Mexican and the American populations studied. Thus, for instance, for 17 Holtzman Inkblot variables studied, as many as 15 have been found to give statistically different results due to culture for children of the same age, sex, school grade and socioeconomic level (17). An independent replication of these findings obtained the

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<sup>2</sup>The Ministry of Education of Mexico has enthusiastically facilitated our research efforts throughout.

## PERSONALITY DEVELOPMENT OF MEXICAN SCHOOL CHILDREN

same results (11) (18). The complexity of the cultural difference is most dramatically suggested in the number of interactions, beyond the main effects due to culture, that again and again appear in the results (14). On the other hand, some preliminary factor-analytical studies for different ages within Mexico indicate a definite change across time in the factorial structure of the intellect (1).

*Results related to the teaching of research.* Twenty theses (10) for the licentiate, the master and the doctor degree in psychology have been presented which report findings of our research or extensions of our basic research design and battery to other subject populations. More than 30 papers (10) have been published or presented at congresses, reporting results from our research. Three of our original assistants have gone to the U. S. to continue their studies for an academic and research career. Several that started as assistants in this research are now teaching at the *Colegio de Psicología* at the National University of Mexico. It is said that the recent reform in the program of studies in the Department of Psychology of the National University of Mexico is due to an extent (which varies with the commentator) to the influence and efforts that this research team has provided. This reform radically changes the program from one with no more than 3% of subjects of a technical nature to one with at least 50% of the subjects of a technical nature.

To summarize, we have attempted to describe how a research project need not and, indeed, should not, especially in a developing country, restrict itself to the attaining of *purely* research goals. As we have endeavored to indicate, the outcomes of a broader perspective may often entail possibilities for professional development seldom envisioned.

### REFERENCES

1. Ahumada, R. Desarrollo intelectual del escolar mexicano. (Tesis para obtener el título de Doctor en Psicología. Universidad Nacional Autónoma de México, México, 1969).
2. Díaz-Guerrero, R. Personality development of Mexican school children. (A research proposal submitted to the Foundations' Fund for Research in Psychiatry, Mexico, 1963).
3. Díaz-Guerrero, R. La dicotomía activo-pasivo en la investigación transcultural. En *Proceedings of the Ninth Congress of the Interamerican Society of Psychology*, Miami Beach, Fla., 1964, 144-149.
4. Díaz-Guerrero, R. Socio-cultural and psychodynamic processes in adolescent transition and mental health. In Sherif & Sherif (Eds.), *Problems of Youth*, Chicago, Ill., Aldine Publishing Co., 1965.
5. Díaz-Guerrero, R. Introducción al simposio. Simposio de estudios transculturales del desarrollo infantil en México y en los Estados Unidos en relación a factores de personalidad, cognición y clase social. En Hereford y Natalicio (Eds.), *Memorias del Décimo Congreso Interamericano de Psicología*, México, Editorial F. Trillas, 1967, 389-392.
6. Díaz-Guerrero, R. Introducción al simposio. Simposio de estudios psicométricos de adaptación y estandarización de pruebas mentales a Latino Amé-

## DIAZ-GUERRERO

- rica. En Hereford y Natalicio (Eds.), *Memorias del Décimo Congreso Interamericano de Psicología*, México, Editorial F. Trillas, 1967, 389-392.
7. Díaz-Guerrero, R. Socio-cultural premises, attitudes and cross cultural research. *International Journal of Psychology*, 1967, Vol. 2, No. 2, 79-87.
  8. Díaz-Guerrero, R. & Peck, R. F. Estilo de confrontación y aprovechamiento: Un programa de investigación. *Revista Interamericana de Psicología*, 1967, Vol. 1, No. 2, 127-136.
  9. Díaz-Guerrero, R. The active and the passive syndromes. *Revista Interamericana de Psicología*, 1967, Vol. 1, No. 4, 263-272.
  10. Díaz-Guerrero, R. La enseñanza de la investigación en psicología en Iberoamérica: Un paradigma. (Discurso Presidencial, XII Congreso Interamericano de Psicología, Montevideo, Uruguay, 1969).
  11. Haroz, M. M. El Holtzman Inkblot Test, el Wechsler Intelligence Scale for Children y otros tests en el estudio psicológico transcultural de niños de habla española e inglesa residentes en México. (Tesis para obtener el grado de Doctor en Psicología. Universidad Nacional Autónoma de México, México, 1967).
  12. Holtzman, W. H. Inkblot perception and personality. (Application for a research grant, U. S. P.H.S., M-3223.C3).
  13. Holtzamn, W. H. Cross cultural research on personality development. *Human Development (Vita Humana)*, 1965, 8: 65-86.
  14. Holtzman, W. H., Díaz-Guerrero, R., Swartz, J. D., & Lara Tapia, L. Cross cultural longitudinal research on child development: Studies of American and Mexical school children. In Hill, J. P. (Ed.), *Minnesota Symposia on Child Psychology*, Minneapolis, Minn., University of Minnesota Press, 1968, Vol. II.
  15. Lara Tapia, L., San Román, A. & Díaz-Guerrero, R. Percepción, inteligencia, formación de conceptos y cultura. In Cross-Cultural studies of personality; cognitive and social class factors related to child development in Mexico and the U.S.A. In Hereford & Natalicio (Eds.), *Memorias del Décimo Congreso Interamericano de Psicología*, México, Editorial F. Trillas, 1967, 143-158.
  16. Lara Tapia, L., San Román, A. & Díaz-Guerrero, R. Estudio demográfico para el programa de investigación sobre el desarrollo de la personalidad del Escolar mexicano. *Revista Mexicana de Investigación Psicológica*, 1969, Vol. I, No. 1 y No. 2, 37-57.
  17. Swartz, J. D. The roles of culture, age, sex and father's occupational level in children's responses to the Holtzman Inkblot Technique. In cross-cultural studies of personality, cognitive and social class factors related to child development in Mexico and the U.S.A. En Hereford & Natalicio (Eds.), *Memorias del Décimo Congreso Interamericano de Psicología*, México, Editorial F. Trillas, 1967, 130-142.
  18. Tamm, M. Resultados preliminares de un estudio transcultural y desarrollo de la personalidad de niños mexicanos y norteamericanos. In Cross-cultural studies of personality; cognitive and social class factors related to child development in Mexico and the U.S.A. En Hereford & Natalicio (Eds.), *Memorias del Décimo Congreso Interamericano de Psicología*, México, Editorial F. Trillas, 1967, 159-164.