

# Comparative Studies of Creativity in Children

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RECENT international cooperation in educational research has produced several important new understandings about the creative development of children. Unfortunately this research is little known to educators. Most of it is buried in master's theses, doctoral dissertations, and other unpublished reports. Of 50 completed comparative studies of creativity, using instruments developed by the author, only 12 have been reported in easily accessible sources.

A variety of instruments have been developed for use in comparative studies of creativity in children. Perhaps the most frequently used instrument is the *Torrance Test of Creative Thinking*,<sup>1</sup> or its predecessor, the *Minnesota Test of Creative Thinking*. Both the figural and verbal forms have been used, but the figural forms have been more popular since they can be administered to young children in groups and require little translation. Portions or complete batteries of the tests have been translated into the following 18 languages: Hindi, Tamil, Urdu, Gujrati, Chinese, Japanese, Korean, French, German, Italian, Spanish, Tagalog, Norwegian, Western Samoan, Afrikaans, Turkish, Greek, and Malayan.

The open-endedness of the test tasks and the universality of the stimuli have made them readily adaptable to different cultures

and subcultures. Children can respond in terms of whatever experiences they have had. The test tasks bring out cultural differences, but a test that would not elicit cultural differences would not be very useful in comparative studies.

One translator objected to the inclusion of the Guess Causes task, saying that children in his culture were not called upon to do this kind of thinking. Cultures differ greatly in the attention given to training in causal thinking. There is a widespread belief that causal thinking depends largely upon maturation rather than experience and training. Inclusion of such a test task can provide a rough index of the extent to which a culture facilitates the development of causal thinking and the extent to which education contributes to such development.

## Discontinuities in Growth

For hundreds of years educators have been divided on the issue of whether it is healthy and natural for intellectual development to be continuous or in stages. Discontinuities in development have been accepted as inevitable and healthy in spite of the fact that they are accompanied by increases in behavioral problems, learning difficulties, and the like. In both the United States and

<sup>1</sup> E. P. Torrance. *Torrance Tests of Creative Thinking: Norms-Technical Manual* (Research Edition). Princeton, New Jersey: Personnel Press, 1966.

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Britain, several investigators long ago noted rather severe discontinuities in creative functioning at ages nine and ten.<sup>2</sup> These investigators concluded that this was a natural phenomenon and that "nothing can be done about it."

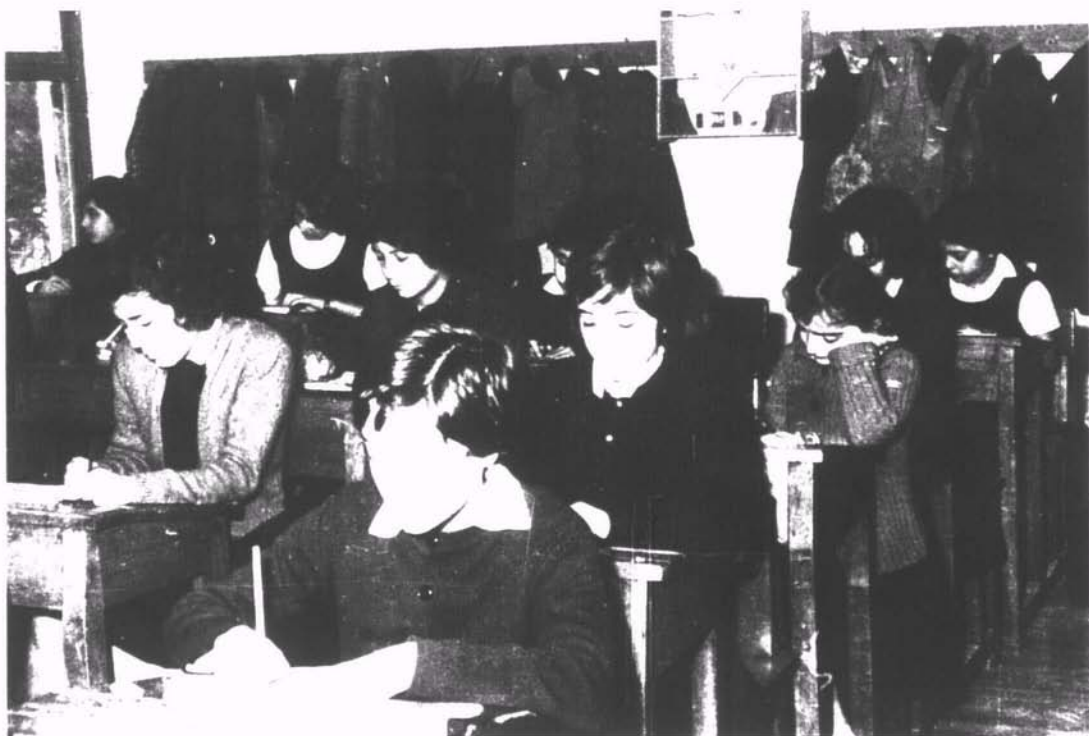
To study this issue, the author and his associates administered both the verbal and figural tests to approximately 1,000 children in grades one through six in each of seven cultures (United States, Germany, Norway, Australia, Singapore, and India) and selected subcultures within each culture.<sup>3</sup> Cross-sectional developmental curves were constructed for each culture and subculture. The sharp decrease in performance found in the U.S. dominant culture samples (Minnesota and

<sup>2</sup> E. P. Torrance. *Understanding the Fourth Grade Slump in Creative Thinking*. Final Report on USOE Cooperative Research Project 994. Athens, Georgia: Georgia Studies of Creative Behavior, University of Georgia, 1967.

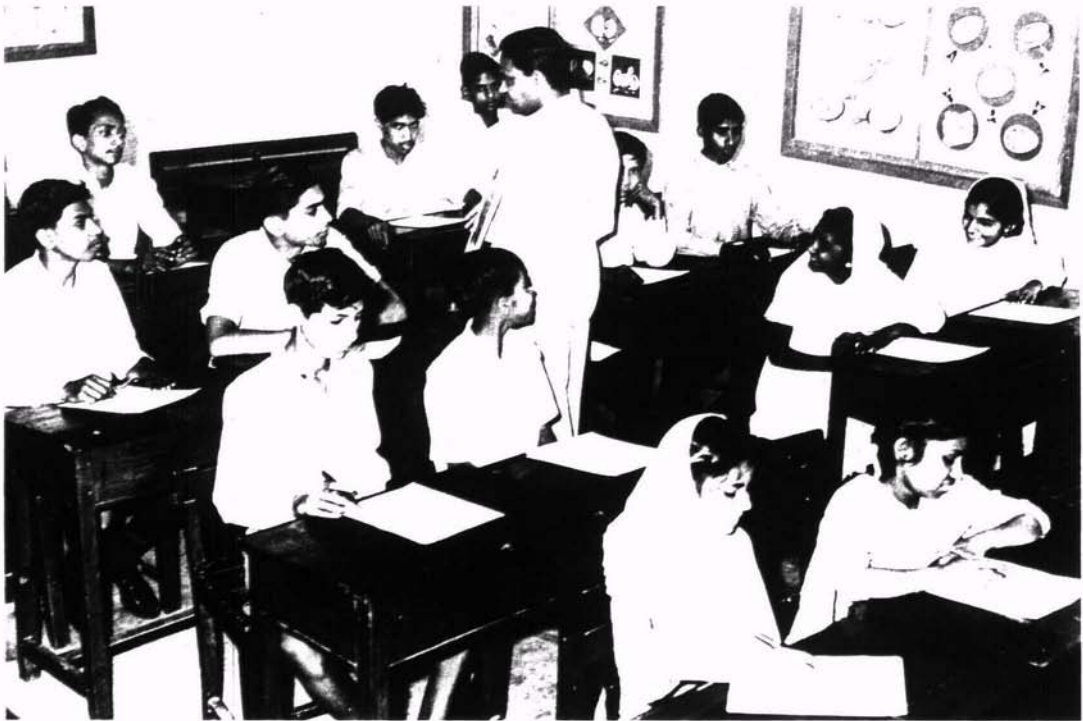
<sup>3</sup> *Ibid.*

California) was not found in the other cultures. Some cultures showed slumps at other points; some showed a high degree of continuity; others showed little or no growth between the first and sixth grades.

Where United States and British influences are strong, discontinuities in creative functioning seem to occur. In a mission school in Western Samoa, one class at each grade level was taught by a U.S. teacher and the other by a native teacher. The developmental curve for the native teachers' classes is continuous, while that for the pupils of the U.S. teachers shows a definite drop at the end of the third grade. In India, children in Sikh and other native-culture schools showed continuity in development, while the fourth-grade slump was apparent in a mission school and a private school, both reflecting strong British influences. In the first three grades, children in the latter schools functioned at a higher level than those in native-culture



A creativity test is administered to a group of Turkish students. Photographs courtesy of the author.



A researcher administers the Ask and Guess Test to a group in New Delhi, India.

schools but showed little or no growth thereafter.

Children in some cultures functioned at a comparatively higher level on figural than on verbal measures (Western Samoans and Negroes in Georgia). Others performed at comparatively higher levels on verbal than on figural measures (India and Australia). Interesting differences also emerged for fluency, flexibility, originality, and elaboration. Negro children in Georgia performed at a high level on figural fluency, flexibility, and originality but at a very low level on figural elaboration. Children in India performed at a relatively high level on verbal fluency and flexibility but functioned poorly on verbal originality. Chinese children scored high on elaboration.

Once evidences of cultural differences in creative functioning are established, there is the task of discovering what influences make the differences. In the above series of studies, two apparently powerful, gross cul-

tural variables were identified and quantified: (a) the kinds of behavior teachers encourage and discourage (Ideal Child Checklist); and (b) the availability of occupational outlets for creative energies as indicated by children's aspirations to occupations in the creative arts and sciences and unusual occupations. These two indexes correlated .94 and .95 respectively with level of creative functioning as measured by the tests of creative thinking.

Still other variables have been studied,<sup>4</sup> but it is hoped that enough examples have been cited to show the promise of comparative studies of creativity in children to point the way to the creation of conditions that will produce healthier, more creative people. □

<sup>4</sup>E. P. Torrance. "Comparative Studies of Stress-Seeking in the Imaginative Stories of Pre-adolescents in Twelve Different Subcultures." In: S. Z. Klausner, editor. *Why Man Takes Chances: Studies in Stress-Seeking*. Garden City, New York: Doubleday & Company, Inc., 1968. pp. 195-233.

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