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ABSTRACT

Territorial decentration is a question of major significance to geographic educators. This paper reports the findings of a research project designed to determine the territorial decentration of an American sample of children. The primary purpose of the research was to determine if Piaget's territorial decentration stages are appropriate for American children. The study was designed to facilitate the collection of data comparable to studies conducted by Piaget in Switzerland and Jahoda in Scotland. An interview-examination with standardized administration procedures was developed and tasks from the studies of Piaget and Jahoda were pilot tested to determine their suitability. A sample of 204 children between the ages of six and thirteen were randomly selected from the state of Georgia. The variance between observed and theoretically expected distributions, and the effects of age, socioeconomic status, and instruction on the development of decentration concepts, are discussed. (FDI)

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Territorial decentration is a question of major significance to geographic educators. The degree to which the geography curriculum complements the child's psychological development has wide ranging implications for the learning process. Decentration has been identified as a developmental process in children and has been investigated by Jean Piaget in Geneva and Gustav Jahoda in Glasgow. The present paper reports the findings of a research project designed to determine the territorial decentration of an American sample of children (Stoltman, 1971).

Piaget's (1928, 1951) theory of spatial stages postulates that territorial decentration in children occurs during the period from 6 to 12 years of age. During that time, children progress from prelogical verbal notions of political territories to a logical knowledge of those territories and their relationships to one another.

Piaget believes that decentration occurs through three stages. He observed that children of 6 and 7 years of age are usually in stage one. They know the name of their city or town and oftentimes their canton and nation. Most often, one of the territories is dominant in the child's thinking. When questioned regarding the territories, stage one children consider them to be mutually exclusive rather than related. Although the verbal notion that city X is within nation X emerges during this stage,

there is little evidence that a logical understanding of the relationship of the two exists. For example, city and nation are consistently portrayed by stage one children as juxtaposed circles, rather than the nation being an inclusive circle.

Children in spatial stage two, 8 to 10 or 11 years of age, are verbally explicit that smaller territories are indeed within and part of larger territories; for example, city in nation. However, their reasoning is often inconsistent and reflects no clear understanding of logical territorial relationships. Also, the stage two child usually confuses the spatial relationship of a third territory, a canton for example. The major development change at stage two is that when asked to portray city and nation as circles, the children enclose the city within the nation.

Beginning at about 12 years of age, children provide consistent explanations of territorial relationships. At that age, children also complement verbal explanations with graphic representations enclosing smaller within larger territories. Piaget labels such attainment as stage three, the final stage of territorial decentration.

Jahoda (1963, 1964) observed that Scottish children also decentrate territorially with age. However, his findings are discrepant with Piaget's. Scottish children

repeatedly decentrate to the various stages at somewhat later ages than Swiss children.

The American study was designed, as nearly as possible, to facilitate the collection of data comparable to the prior studies. An interview-examination with standardized administration procedures was developed. Tasks from the studies of Piaget and Jahoda were pilot tested to determine their suitability. Following instrument refinements, a sample of 204 children between the ages of 6 and 13 years was randomly selected and individually examined on the decentration tasks. All the children were residents of the state of Georgia, USA. The sample included black and white, male and female, and urban and rural children.

The primary purpose of the research was to determine if Piaget's territorial decentration stages are appropriate for American children. In order to test the theory, the researcher designed a decentration model based upon Piaget's reports. The American sample's observed decentration was then tested against the model by means of the Chi Square Test for Goodness of Fit.

Despite the testing of several age-decentration fits believed to reduce possible error variance in the model, the differences between the observed and theoretically expected distributions were significant ($p < .001$). Therefore, the researcher accepted the null hypothesis that

Piaget's decentration stages are not appropriate for the American sample of children used in the study.

A further inspection of the Piagetian decentration model and the American sample's performance on the tasks revealed near perfect correspondence for the age range 6 years to 8 years 6 months (8.6). The American children in that age range are usually aware of the name of their home town, but the state and nation are vague. No real awareness of larger territories is consistently expressed. American children at stage one of decentration, therefore, are somewhat older than expected, based on Piaget's reports. That observation is similar to the decentration lag revealed by Jahoda in his reports of Scottish children.

At age levels older than 8.6, the observed sample departed significantly from the Piagetian model. Of those children older than 8.6, 47% remained in decentration stage one. Stages two and three each contained 26.5% of the children older than 8.6. Therefore, 64% of the American sample had not decentrated beyond their immediate community with regard to territorial perspective and relationships. It was expected that 36% would be the maximum proportion at that stage.

Piaget (1951) attributed territorial decentration to the main effect of age. Jahoda (1963, 1964) attributed decentration to the combined effects of age and socio-

economic status. The author found a .71 ($p < .01$) multiple correlation between decentration and the independent variables, age and socio-economic status. Thus, the main effects of age and socio-economic status explain 50% of the variance in territorial decentration in the American sample. The remainder, or 50% of the variance, is not explained by those variables. Identifying the remaining sources of variance presently requires speculation. The researcher believes that scholastic aptitude, home and school experiences, travel, the combined effect of visual perceptual skills, mathematical proportion skills, and size relationships abilities are plausible explanations.

Also, the decentration differential observed between Swiss and American children is probably attributable in part to curricular differences. The tradition of local studies in the European educational system is undoubtedly influential. The decentration effects of general social studies during the early elementary school years of American children are questionable. The absence of social studies and geography in American early elementary grades is common. In other instances, only a superficial coverage of U.S. history and descriptive geography is undertaken. The author has observed few instances in American elementary schools where the local community has been the subject for observational training and mapping of territorial relationships.

A second variable believed to effect decentration is the differing cultures of the U.S. and Europe. Differences in language and other cultural patterns may facilitate the development of territorial differentiation in the European child. The combined cognitive and affective experiences associated with rather small geographical areas manifesting numerous cultural differences may result in earlier decentration. American children are not exposed to such overt differences.

It has been shown that age, as related to development in general, and socio-economic status explain decentration to a degree. The effects of curricula have not yet been investigated as an independent variable. It is probable that children will decentrate at an earlier age when provided with certain types of school experiences. Perhaps the local studies tradition of European schools, a practice not found in the majority of U.S. schools, accounts for the more rapid decentration of Swiss and middle class Scottish children. Other types of curricula need to be compared for effect.

It appears that decentration involves logical thought processes in geography which are comparable to logic in the natural sciences and mathematics. Just as children use set theory and size relationships in mathematics, they seemingly need to investigate what it is that makes a town a town, a state a state, and a nation a nation, each involving sets of accumulative phenomena. To accomplish

the latter, they must certainly determine the territorial relationships which underly the nation.

Unquestionably, researchers in psychology have unveiled something which geographic educators have not yet resolved. A decentration curriculum is approximated in the expanding environment philosophy. However, that philosophy is disapproved of by many educators in the U.S. At present, little research evidence ties elementary school geography and social studies to the development of the child in other than generalities alluding to learning sequences. Despite the age differences in research findings, decentration appears to be a universal developmental sequence. Whether or not it should be left to chance is the remaining question. It is the responsibility of and a challenge to geographic educators to research the effects of geographic curricula on the developmental process of territorial decentration.

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