

with their greeting behaviors. Infants exhibiting the resistant or ambivalent pattern (again, there were two subgroups identified) responded to reunion by proximity- and contact-seeking alternated with displays of angry and resistant behavior.

These various patterns of behavior were first identified in a study of 23 infants undertaken by Ainsworth early in the 1960's. They provided a rubric for classifying the patterns of behaviors observed both in the three other studies reviewed in this book and in research conducted by other investigators since the strange-situation procedure was first described in 1969.

In their new monograph, Ainsworth and her coauthors describe the strange-situation procedures as a remarkably sensitive way of assessing the attachment relationships between infants and adults. Clearly aware that other scientists will be wary of such claims, they are at pains to demonstrate that the classification of infants' behavior in the strange situation is both reliable and valid. One of the authors (Waters) showed in his dissertation research that there is remarkable stability over time in the way infants behave in the strange situation, and his finding was confirmed by D. B. Connell. Several other studies, notably those conducted by Silvia Bell and Alan Sroufe, have reported that one can predict on the basis of strange-situation behavior how the infant is going to behave in other, quite different, circumstances. Essentially, "adaptive" behavior in the strange situation (that is, the secure pattern of behavior) predicts adaptive behavior in other settings, even when the actual behaviors that are adaptive in the two situations differ markedly. It is the emphasis on and emerging demonstration of continuity in the adaptedness of the organization of behavior that make the strange situation an appealing research tool.

Obviously, any investigator who seeks to add a new diagnostic and predictive tool to her or his arsenal will want to know about the antecedents of the performance it assesses as well as about the consequences (or predictiveness) of that performance. Unfortunately, the determinants of attachment security have been investigated in only one study, a longitudinal investigation of the 23 infants in Ainsworth's original sample. This study has yielded intriguing information about the determinants of behavior observed in the strange situation, and this evidence is reviewed once again in *Patterns of Attachment*. The

primary difference between the securely and the insecurely attached infants in Ainsworth's sample was that the former had mothers who were sensitively and reliably responsive to their signals, whereas the mothers of the latter were insensitive and—in the case of avoidant babies—rejecting. Several analyses have shown that the mothers of infants later classified as securely attached and the mothers of insecure infants could be differentiated as early as the first quarter-year of the infants' lives. All these analyses are based on the same small sample, however. There is a clear need for additional exploration—via longitudinal analysis—of the determinants of strange-situation behavior. Although Ainsworth *et al.* do not explicitly acknowledge this need, the reader is sure to perceive a significant gap here.

Several other investigators are currently exploring the antecedents of the patterns of behavior observed in the strange situation, and Ainsworth *et al.* review that work as well as their own. The results obtained so far make a persuasive case for further research on the predictive validity of the strange-situation procedure.

Researchers in the field will have encountered much of the material in this book before, but they will be pleased to have it brought together, especially because Ainsworth and her coauthors, freed of rigid space restrictions, have been able to provide a lucid theoretical context and to weave the findings and

theory together. Moreover, data that were presented elsewhere are reported here in greater detail, and some of the data reported have heretofore been available only in unpublished form or in documents of limited circulation. Other "old" findings have been made more impressive by increases in the sample sizes on which analyses are based. There are also several analyses that have not been discussed previously, one example being a multiple discriminant function analysis of the strange-situation data.

In short, Ainsworth and her coauthors have succeeded in providing a comprehensive and readable synthesis of research relating to the assessment of individual differences in infant-parent attachment. Their synthesis points clearly toward matters in need of further investigation, and this heuristic element adds to its value. *Patterns of Attachment* also contains all the procedural information—including instructions for the classification and rating of the patterning and organization of behavior—necessary to prepare oneself to do research in this area. I confidently predict that, stimulated by this book, many more published studies will employ the strange-situation procedure and that this will presage major advances in the understanding of infant social development.

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Independent Explorations

Children's Experience of Place. ROGER HART. Irvington, New York, 1979 (distributor, Halsted [Wiley], New York). xxvi, 518 pp., illus. \$27.50.

This is a delightful and intelligent book—delightful because it captures some of the vigor and wonderment with which children explore their environment, intelligent because the author has adopted a very flexible course allowing the children themselves to lead him in defining the major outlines of the study. The study focuses on a small New England village. For some purposes the study includes all the local children from kindergarten through the sixth grade. A sample of 20 children is the subject of more detailed study. A very wide range of methods are used: interviews with parents and child, diaries kept by the children, observation by the author,

place modeling and mapping, recognition of slides and pictures, informal trips with children, and efforts on the part of the author to empathize with the children and recapture his own subjective experience of place.

With such a range of findings it is difficult to summarize and do justice to the study. In broad outline, however, the following represent some of the more intriguing findings and generalizations. Much of the children's experience of place seems to grow directly out of their unaided explorations and is only subsequently and incompletely integrated by the shared communal language for places. Parental restriction on their children's movement is conditional, including a free range where children may go without permission, another that they may explore with companions, another for bicycling, and yet another if they pe-

riodically "check in" with their parents. All of these ranges increase with age through negotiations between parents and children, the children extending their ranges by occasionally over-extending them and the parents doing so by calling upon children to do errands or

participate in sports. Sex differences are quite apparent by the first grade and persist throughout the remaining grade levels. Girls have smaller ranges, display less place knowledge, and, in general, make land use modifications that reflect a concern for "domestic" activities.



"Easily the most frequently stated preferred place is the ballfield . . . in the town center. . . . The functions of the ballfield transcend its name. It serves almost as a town common. The children know it to be the busiest center of child-activity." [From *Children's Experience of Place*]



"Throughout the town, usually beneath the trees, there are patches of dirt which are very highly valued by boys and girls alike. Here, whether alone or with a friend, children from three years of age to 12 play for hours building miniature landscapes." [From *Children's Experience of Place*]

Some of the sex differences are attributable to greater parental restrictions on girls—for example, they are expected to be more available to assist their mothers—but others seem to be imposed by the children themselves because of their growing conceptions of sex role behavior.

Many of the parental restrictions on childrens' movements arise from the very reasonable fears of automobile traffic and natural environmental hazards, but there also seems to be a prevalent parental conviction that spatial restraints are necessary to establish in principle the need for orderliness. These fears are less prevalent in open suburb-like housing areas, but these areas also provide a less variable environment and a narrower experiential base among the children. The children themselves are strongly attracted by the opportunities for play with other children, and this is a persistent reason for their extending their free range and adopting a certain "vagueness of language" in describing their movements. This same preference for sociability seems to attract the children to many places where they can observe others—the gas station, factory entrances, major intersections.

The study also includes a number of fascinating findings on place knowledge and feelings toward places. Short cuts are especially treasured even when they turn out to be "long cuts." Favorite places and secret places are stoutly protected and regarded with a strong sense of personal ownership. "Scary places," like abandoned buildings and woods, are viewed with both fascination and fear, and in many instances the children seem to be mystifying or enchanting (my terms) portions of their environment, enriching the environment with their own imagination.

This study aims for a wholistic and naturalistic account of children's experience of place. Its accomplishments are very substantial and make pleasurable as well as persuasive reading. The New England village is an unusually benign environment with an exceptionally rich natural environment and relatively limited social environment. Still, the basis for comparative research in other settings is well worked out, and the methodological and theoretical appendixes as well as the outstanding maps will contribute to future research in different childhood environments.

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