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My Brother's Keeper: Child and Sibling Caretaking¹

by Thomas S. Weisner and Ronald Gallimore

INTRODUCTION

The Handbook of Socialization Theory and Research, published in 1969 and 1,182 pages long, includes virtually no reference to caretaking of children by anyone other than parents. What

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THOMAS S. WEISNER is Assistant Professor of Anthropology, Departments of Psychiatry and Anthropology, University of California, Los Angeles (UCLA Center for the Health Sciences, 760 Westwood Plaza, Los Angeles, Calif. 90024, U.S.A.). Born in 1943, he was educated at Reed College (B.A., 1965) and Harvard University (M.A., 1969; Ph.D., 1973). He was a lecturer in the Department of Sociology at the University of Nairobi in 1969-70. His research interests are socialization and child rearing, rural-urban migration, urban anthropology, and observational and naturalistic methods. Among his publications are "Urban-Rural Differences in African Children's Performance on Cognitive and Memory Tasks" (*Ethos* 4[2]); with M. Kornfein and J. Martin, "Women into Mothers: Experimental Family Life Styles," in *Women into Wives*, edited by Jane R. Chapman and Margaret J. Gates (Beverly Hills: Sage, 1976); "The Structure of Sociability: Urban Migration and Urban-Rural Ties in Kenya" (*Urban Anthropology* 5:199-223); and, with Marc Ross, "The Rural-Urban Migrant Network in Kenya: Some General Implications" (*American Ethnologist*, in press).

RONALD GALLIMORE is Associate Professor of Psychology in the Department of Psychiatry, University of California, Los Angeles, and member of the Mental Retardation Research Center. He was born in 1938 and studied at the University of Arizona (B.A., 1960) and Northwestern University (M.A., 1963; Ph.D., 1964). He has taught at California State University, Long Beach (1964-66) and the University of Hawaii (1968-71) and has been Research Psychologist at the B. P. Bishop Museum in Honolulu (1966-68). His research interests are culture and behavior; social influence, behavior therapy and placebo; and behavioral analysis and intervention in education. He is the editor, with A. Howard, of *Studies in a Hawaiian Community: Na Makamaka o Nanakuli* (Pacific Anthropological Records 1) and the author, with S. MacDonald, of *Battle in the Classroom* (Scranton: Intext, 1971) and, with J. W. Boggs and C. Jordan, of *Culture, Behavior, and Education* (Beverly Hills: Sage, 1974).

The present paper, submitted in final form 23 VIII 76, was sent for comment to 50 scholars. The responses are printed below and are followed by a reply by the authors.

cross-cultural evidence we can find indicates that nonparental caretaking is either the norm or a significant form of caretaking in most societies. Yet socialization research rarely takes this fact into account.

Perhaps for social and historical reasons, mother-child dyadic analyses flourish in Western, industrialized nations, where mothers have been the primary caretakers of children; other caretakers—such as siblings or other kin—are and have been in recent decades less available here than almost anywhere else in the world. Socialization in relatively small nuclear families has been examined to the exclusion of the other patterns that are characteristic of many cultural and social groups. If scholarly study of socialization had begun in earnest 75 to 100 years ago, when such alternative family arrangements may have been more widespread in the Western world (but cf. Laslett and Wall 1972), the role of nonmaternal caretakers would no doubt have been less neglected.

Socialization theories and methods have also acted to focus research on parental caretaking. Freudian models, for instance, emphasize maternal and paternal influences. Further, the method of retrospective mother reports is naturally biased towards a maternal caretaking perspective. Whatever the causes, there has been a nearly exclusive focus on maternal (and to a limited extent paternal) caretaking, to the exclusion of nonparental caretakers—e.g., adult kin of the parents (such as grandparents or aunts), nonkin adults, and a variety of children, particularly siblings.

This paper focuses on the role of child caretakers. The use of older children to care for younger ones is very widespread. Among the few nonparental caretaking research studies, child and sibling caretaking (used interchangeably in our discussion) are seldom mentioned, yet the styles are most different from parental caretaking and are intriguing in their potential effects on both caretaker and charge.

We include as child or sibling caretaking all kinds of socialization, training, and routine responsibilities one child assumes for others. "Caretaking" refers to activities ranging from complete and independent full-time care of a child by an older child to the performance of specific tasks for another child under the supervision of adults or other children; it includes verbal or other explicit training and direction of the child's behavior, as well as simply "keeping an eye out for" younger siblings. Our use of the term caretaking is global; wherever possible and appropriate we specify more exact referents. A more precise identification of caretaking styles of children must await comprehensive study, an enterprise we hope will be served by this review.

The first portion of this paper explores some of the cross-cultural variations in child caretaking. The next section examines some of its antecedents. The final section of the paper reviews eight possible correlates and/or consequences of child caretaking for caretaker and/or charge.

CROSS-CULTURAL DATA ON CHILD CARETAKING

Though child caretaking is widespread cross-culturally, little is known of its ethnographic incidence. Relevant material is scattered through many ethnographic studies and is generally reported in a manner that makes comparative analysis difficult. Minturn and Lambert (1964:170), for example, were unable to rate 76 societies in the Human Relations Area Files reliably on the amount of time various caretakers, including siblings and nonparents, are in charge of younger children (though they were able to rate caretaking of infants). Barry and Paxson (1971) do provide some scales of caretaking, using a controlled sample of 186 societies chosen for their relatively detailed ethnographic material on children. Table 1 shows the importance of the mother during infancy; 46.2% of the infants in the sampled societies were rated as primarily or exclusively cared for by the mother. Nearly 40% of infants, however, were rated as being cared for by others in important caretaker roles or cared for more than half the time by others. After infancy (table 2) this proportion changes dramatically: less than 20%

TABLE 1

IMPORTANCE OF MOTHER VERSUS OTHER CARETAKERS AND COMPANIONS DURING INFANCY, AS RATED FROM ETHNOGRAPHIC SOURCES ON 186 SAMPLED SOCIETIES^a

	SUMMARY RATING	
	N	Percentage
Almost exclusively the mother	5	2.7
Principally mother; others have minor roles	81	43.5
Principally mother; others have important roles	63	33.9
Mother provides half or less of care	10	5.4
Mother's role is significant but less than all others combined	2	1.1
Most care except nursing is by others	1	.5
Practically all care, including nursing, is by others	-	-
Could not be coded	24	12.9
Total	186	100.0

^a Tabulated from Barry and Paxson (1971: table 1, column 13[a]), combining all coding confidence levels and sex designations (if any).

TABLE 2

IMPORTANCE OF MOTHER VERSUS OTHER CARETAKERS AND COMPANIONS DURING EARLY CHILDHOOD, AS RATED FROM ETHNOGRAPHIC SOURCES ON 186 SAMPLED SOCIETIES^a

	SUMMARY RATING	
	N	Percentage
Almost exclusively the mother	-	-
Principally the mother, but others have important roles	36	19.4
Child spends half or less of the time with mother	60	32.3
Majority of time is spent away from mother	38	20.4
Practically all the time is spent away from mother	2	1.1
Could not be coded	50	26.9
Total	186	100.0

^a Tabulated from Barry and Paxson (1971: table 1, column 13[b]), combining all coding confidence levels and sex designations (if any).

of the societies had mothers as principal caretakers, and even in this category others had important roles in caretaking. An equal proportion (20.4%) of societies had young children spending most of their time away from the mother. About a third of the societies were rated as settings where children spent half or less of their time with the mother. Over a quarter could not be rated.

With whom are infants and young children, if not with their mothers? Tables 3 and 4 summarize codes for companions and caretakers in infancy and early childhood. In infancy, adult females (primarily mothers) are the modal category (32.3% of the sample); female children (16.7%) and other females (9.1%) rank second and third. The range in principal infant relationships is quite wide, and more so in early childhood (table 4). Peer groups (both sexes), older children (one or both sexes), and adults (one or both sexes) all are judged to be the principal locus of companion and caretaker relationships for a number of societies. According to these ratings, in the majority of societies mothers are not the principal caretakers or companions of young children.

Paradoxically, most ethnographic sources mention child caretaking, sometimes including pictures of children tending their siblings, but focus most description and most theoretical efforts on parental, usually maternal, caretaking. Leighton and Kluckhohn's classic *Children of the People* (1948) provides an illustration. The page facing 32 shows a picture of a Navajo girl in charge of another child, the caption stating, "Big sister

TABLE 3

PRINCIPAL COMPANIONS AND CARETAKERS DURING INFANCY, AS RATED FROM ETHNOGRAPHIC SOURCES ON 186 SAMPLED SOCIETIES^a

	SUMMARY RATING	
	N	Percentage
Children (female only)	31	16.7
Children (sex unspecified)	4	2.2
Children (both sexes)	11	5.9
Adult family members (female only)	60	32.3
Adult family members (sex unspecified)	-	-
Adult family members (both sexes)	14	7.5
Others, including employees (female only)	17	9.1
Others, including employees (sex unspecified)	-	-
Others, including employees (both sexes)	1	.5
Could not be coded	48	25.8
Total	186	100.0

^a Tabulated from Barry and Paxson (1971: table 1, column 15[a]), combining all coding confidence levels and sex designations (if any).

TABLE 4

PRINCIPAL COMPANIONS AND CARETAKERS DURING EARLY CHILDHOOD AS RATED FROM ETHNOGRAPHIC SOURCES ON 186 SAMPLED SOCIETIES^a

	SUMMARY RATING	
	N	Percentage
Peer group (single sex)	10	5.4
Peer group (sex unspecified)	1	.5
Peer group (both sexes)	43	23.1
Older children (single sex)	22	11.8
Older children (sex unspecified)	8	4.3
Older children (both sexes)	22	11.8
Adults (single sex)	14	7.5
Adults (sex unspecified)	-	-
Adults (both sexes)	21	11.3
Could not be coded	45	24.2
Total	186	100.0

^a Tabulated from Barry and Paxson (1971: table 1, column 15[b]), combining all coding confidence levels and sex designations (if any).

looks after the toddler." While Leighton and Kluckhohn's work emphasizes multidisciplinary research, clearly recognizes the importance of multiple caretaking, and represents an outstanding example of detailed ethnographic research on children, this photo is one of only a few specific notices of child caretaking. *Children of the People* emphasizes the diffuse character of interpersonal attachments and the fact that the Navajo child is trained by and lives with a large and flexible family group (e.g., pp. 44-50). Yet the differing caretaking styles of parents, other adults, and children are largely considered collectively, as evidence for diffuse ties, rather than separately, as variable, distinctive caretaking patterns. The theoretical implications of child caretaking are still undeveloped in comparison to maternal or paternal caretaking, and this fact is reflected in sparser descriptive and interpretive ethnographic data concerning child caretaking.

The psychological literature present somewhat different but parallel problems. Psychological studies of siblings have not generally considered the extent to which children are assigned caretaking tasks and/or defined roles. Sutton-Smith and Rosenberg (1970) provide extensive documentation that having siblings and ordinal position in the family influence a number of psychological dimensions, including achievement, affiliation, conformity, and interests. Their frame of reference is the (United States) two-parent nuclear family, with explicit recognition that siblings constitute a social subgroup organized in a complex hierarchy. The importance in sibling studies of the assumption of the caretaking role is more evident in other societies and family types. For example, in Hawaiian-American families caretaking is one of numerous domestic tasks shared among parents, extended kin, sometimes neighbors, and almost always children (Gallimore, Boggs, and Jordan 1974). The implications of this mixed role and expanded caretaking system for sibling-sibling influence are evident. In what ways the caretaking role might influence the sorts of sibling-sibling influence effects reviewed by Sutton-Smith and Rosenberg remains at this point a matter of speculation. The child caretaking literature is less developed than the sibling-sibling area; it would be pointless, for instance, to employ the sophisticated sibling-sibling nomenclature—detailing sex and status relationships among siblings—to examine the available child caretaking data. In general, we have not included in this review studies of sibling structure and covariates unless caretaking is explicitly considered.

We can be certain that addition of child caretaking variables will further complicate studies of sibling-sibling influence. For example, the tendency of later-born children to counteract by direct aggression the power of older siblings (Sutton-Smith and Rosenberg 1970:68) may be reduced if the family and society legitimizes the caretaking authority of older children. This would be most likely in a society that featured sibling caretaking, but it is also a plausible hypothesis about the prototypic American nuclear family. Indeed, Sutton-Smith and Rosenberg note that Sears, Maccoby, and Levin (1957) dropped a parental-influence explanation of sibling counteraction in favor of a social structural account which implicitly recognizes the power of sibling-sibling relationships. In the nuclear households studied by Sears et al., "relatively greater amounts of frustration and discomfiting control in a family come from persons who are immediately above the child in the power hierarchy than from other family members, and regardless of the parents' permissiveness and punitiveness, the young child tends to be more aggressive toward those persons" (p. 148). Would this be equally likely in families which vary in the extent to which siblings perform significant caretaker roles or in societies with multiple-caretaker (child, extended kin, and parent) structures?

Finally, there are methodological discontinuities which hinder even speculative integration of the two literatures. The bulk of the sibling-sibling influence research is based on

indirect measures—for example, various tests and questionnaires. In contrast, the child caretaking literature is largely general and ethnographic in form and is based on informant interviews and direct observations. The contrast reflects the nature of the variables being studied; in the sibling studies, relatively long-term effects, rather than the immediate facets and correlates of caretaking, are researched.

In broad perspective, then, it is clear that siblings influence siblings. What the outcomes are, and how they occur, is less clear. Our review suggests that sibling caretaking may contribute an additional and important class of variables to fine-grained analyses of sibling-sibling influence and status.

Autobiographical accounts of childhood written by non-Western authors frequently refer to sibling caretaking. Lijembe (1967:4-5), who grew up in Western Kenya among the Idakho, a subtribe of the Abaluyia, describes in detail the years he had to serve as a nurse to his younger sister:

Because there was no older sister in the family, and my mother had to go off to work in the *shamba* [gardens] everyday, it wasn't long before I was obliged, though still a very young child myself, to become the day-to-day "nurse" for my baby sister. For my mother to make me succeed in this function, she had to train me—to give me instructions and to see how well I carried them out. . . . As her *shamba* work increased, so did my nursing duties. . . . before moving off to the *shamba*, she would give me instructions: Do not leave the home unguarded, she would tell me. . . .

Lijembe describes leaving the home while his younger sister was sleeping to play with his friend-nurses from other homesteads; he describes taking his sister with him to play and to go bathing; he tells how he toilet-trained her and how he fed her. Punishment of the child caretaker for poor performance was swift.

In a recent paper describing infant caretaking very near Lijembe's home area, Munroe and Munroe (1975:2) comment on the general pattern of child caretaking in which Lijembe participated:

For an infant, the implications of the homestead and household residence patterns and the adjacent field agriculture pattern are many. Relatively young children may be left to caretake infant siblings when a large number of related persons are within easy shouting distance. And a mother, even when hoeing at the farthest field in a homestead, can be reached in five minutes at the most by a desperate sibling caretaker. Child caretakers, termed walking baby carriages by one anthropologist, are frequent. And these caretakers may be only four years older than their infant charges. Typically, an older child is designated as a regular caretaker for the infant born second or third after him. The mother can go about her subsistence farming activities with the understanding that the caretaker will behave responsibly during her absence. Because about 60% of the potential caretakers might be school-aged children currently in school, the mother must frequently rely upon children under seven to provide any infant care needed during school hours.

For as many as 60% of children to be in school is a recent development; in other respects, however, the organization of African child caretaking is very similar to Lijembe's report, as is the complex relationship between child caretaking and maternal caretaking.

Most, but not all, caretaking of children by other children is done within the children's own domestic group, family compound, or primary social unit. These forms of nonformal, noninstitutionalized child tending are the focus of our paper. There are, however, important instances of *institutional*, extra-familial child caretaking systems. Some societies use hired child nurses or exchange young children between households in order to provide for caretaking. The hired babysitter aids millions of American families and provides child caretaking experiences for children. Specific kin of the mother (such as a

younger sister or female cousin) are often preferred caretakers. Read (1968) describes such a system among the Ngoni of Malawi. Bronfenbrenner's (1970) comparison of American and Russian childhood emphasizes the importance of the responsibility of older children for younger ones outside the home, an arrangement institutionalized at age 7 when the children enter school. Spiro's report (1958) of kibbutz child care includes examples of older children visiting younger children and acting as surrogate caretakers. Far more common in the world, however, is informal child and sibling care as part of the home and daily routine.

Child imitation of adult socialization practices is widely reported. Williams (1969:71) describes the caretaking style of young girls aged 3 to 7 among the Dusun of Malaysia; these girls are often in charge of children aged 2 to 4:

Baby tenders usually take their responsibility seriously. Since the two-year-old is usually tended by the next oldest child, who may be only three or four years old, there is a continuation for the initial part of this time of a childhood version of a mother's activities with the infant; young baby tenders speak in tones of voice they think mothers use with infants and spend much of their time in their first months as child nurses in play at feeding, bathing, and singing to their charges.

This imitation of the mothers' caretaking is the earliest sibling-care style practiced by the youngest baby tenders. This style of caretaking is not restricted to certain playful periods of the day—it is the *predominant* socialization experience: "on the average two- to four-year-old children spend more than 70 percent of every day in sole charge of and in contact with their child nurses. The remainder of the time of care was occupied in direct contacts with parents or parent surrogates as the children were alternately indulged, censored, or teased" (p. 73).

Geertz's (1961) study of the Javanese family reiterates the style of sibling caretaking as an imitation of parental styles and adds a further distinguishing feature: the older child is expected to be even *more* tolerant of the younger one than the parent may be (p. 107):

Older siblings are instructed to take care of the small child and, if they are much older than he, will resemble a lesser edition of the parent in their behavior toward the child . . . the older sibling . . . is constantly instructed to give in to the wishes of the younger one. If the older one refuses and there is a quarrel, the parents blame him. Even siblings only slightly older than the child are expected to surrender whatever they have to him. . . .

Sibling caretakers are frequently operating under two simultaneous sets of pressures—one from their small charges, the other from their parents. Child caretakers must learn to balance these two sets of demands; they must try to understand often complex social rules; and they must correctly interpret the behaviors of other children for whom they are responsible. Given the difficulty of all these skills, child caretakers may in fact develop caretaking styles very *different* from those of their parents. Children may or may not be consciously trying to imitate their parents, but the *results* are usually different from parental care. Mead (1961) reports that Samoan child caretakers punish and discipline their charges through routinized verbal commands and avoid making a scene which would risk annoying the mother. Mead observes that a sibling caretaker "learns to shout, 'Come out of the sun,' before she has fully appreciated the necessity of doing so herself" (p. 23) and continues:

By the time Samoan girls and boys have reached sixteen or seventeen years of age these perpetual admonitions to the younger ones have become an inseparable part of their conversation, a monotonous, irritated undercurrent to all their comments. I have known them to intersperse their remarks every two or three minutes with, "Keep still," "Sit still," "Keep your mouths shut," "Stop that noise," uttered quite mechanically although all of the little ones present may have been behaving as quietly as a row of

intimidated mice. . . . The little nurses are more interested in peace than in forming the characters of their small charges and when a child begins to howl, it is simply dragged out of earshot of its elders. No mother will ever exert herself to discipline a younger child if an older one can be made responsible.

Mead suggests that sibling caretakers are more indulgent than their parents towards young children in order to avoid the parental wrath they will incur should they not maintain order. Thus the Samoan child being watched by an older sibling may be a "small tyrant." This pattern does not last forever: "just as a child is getting old enough so that its wilfulness is becoming unbearable, a younger one is saddled upon it, and the whole process is repeated again, each child being disciplined and socialised through responsibility for a still younger one" (p. 23).

Caretaking of one's *own* siblings may differ from that of neighbor children. Samoan child caretakers will coax, bribe, and divert the attention of disturbing infants in their own household group, since there are elders in authority to punish them if they don't keep the peace. In group situations with other children, these same caretakers will vent their anger and punish other children with more authority. Even here, however, such outbursts are "nine-tenths gesture" (p. 24).

The pattern of child imitation of the parents' caretaking pattern does not always lead to high indulgence and willfulness on the part of the charge. Whiting (1941:56) reports that among the Kwoma of New Guinea older siblings *overimitate* their parents—they command, scold, punish, beat, and kick their charges more often than do the parents themselves. Boys and girls tease and order around younger children apparently for "the pure joy of it" (p. 58). In this case, parents do not expect the child being looked after to be indulged, nor do parents indulge young children past infancy.

The caretaking of a child can be the *opposite* of the style of the parents. Read's study of the Ngoni contrasts the stern and strict direction of the senior women supervising children in a village with the more flexible and protective style of young girls brought into the lineage group for full-time caretaking purposes. "The nurse girl especially was inclined to be indulgent; she was young and playful; the baby was her only responsibility. She was anxious to protect her charge in every way . . ." (Read 1968:28).

Whatever the style of the caretaking, there is usually a strong contrast in caretaking between infancy and young childhood. Among the Kwoma, for instance, mothers take complete charge of infants and rarely leave them. Older children never care for infants. After weaning, however, the toddler is out on his own, under the care of older children, and must begin to learn domestic tasks and social rules by imitation and stern direction of older children (Whiting 1941:45-47). Different periods in a child's growth, not only infancy, can have very different caretaking styles associated with them, depending on whether children or adults are caretaking and what the expectations are among the three parties—parents, caretakers, and charges.

The wide variation cross-culturally and intraculturally in child caretaking styles and organization versus adult patterns is influenced by the relative ages of caretaker and charge, by parental models and expectations, by differing cultural conceptions of children's maturity, by other tasks and demands on the child, and by factors affecting the demographic makeup of the community and the residential patterns of the household. There are few detailed descriptions of child caretaking patterns in terms of all these variables. Williams (1969:114-15) emphasizes the intracultural variability in child caretaking among the Dusun and considers this crucial in understanding enculturation patterns.

Whatever tentative hypotheses and generalizations might be possible in contrasting child and adult caretaking, variability within and between cultures must be kept in mind. Relative

indulgence, the parent-child caretaker-charge triad, sibling versus nonsibling caretaking, the extent of institutionalization, verbal or nonverbal styles, physical stimulation, consistency—all these dimensions and others need more detailed research and cross-cultural mapping.

ANTECEDENTS

Availability of individuals to assume caretaking roles is a critical variable in child versus adult caretaking. Availability is a function of many factors. The most important is the composition and size of the residential or domestic group. Where a mother lives alone with her children and where kin or other socially relevant caretakers live far away, availability of caretakers is severely limited. In contrast, extended or joint domestic groups offer a range of caretaking opportunities.

Cross-cultural residential patterns, reflected in data taken from the Human Relations Area Files by D'Andrade (1966), demonstrate a point familiar to anthropologists: in most societies, mothers rearing children do not live in nuclear, neolocal households (table 5). Only 26 societies (6.1%) of the sample have both neolocal residence and no descent group organization to provide potential support for caretaking.

Family and domestic group size varies widely, but is typically larger cross-culturally than is the case for the United States. Burch (1967:353) presents data from a number of countries on mean household size, various kinds of households (single-mother, number of children, etc.), and kin relations. Table 6, reproduced from Burch, illustrates the range in mean household size and the changes in size over time for a wide-ranging selection of international census data. Such differences should be reflected in the availability of nonparental caretakers in different societies. Burch also contrasts a range of societies on the numbers of children and other relatives in households and the ratio of the nuclear family members to total family. These figures vary widely cross-culturally and could be proxy estimates for certain patterns of caretaker availability. Gallimore, Tharp, and Speidel (1974) report a significant correlation for Hawaiian-Americans between number of siblings and incidence of sibling caretaking (also see Gallimore, Boggs, and Jordan 1974). With more live births and larger family sizes, sibling caretaking is likely to increase generally in a society, although the incidence within families also depends on children's sexes and ages, age of parents, and so forth.

Even with nonneolocal residence, descent groups, and large family size, potential caretakers must be around the child enough to be available for caretaking. Are caretakers away from the home and/or the child much of the time, or are they usually nearby? How far are children themselves allowed to wander from home, and at what ages are they considered independent in particular domains—i.e., no longer needing care? What is the mother's workload, and what kinds of tasks does she perform?

TABLE 5

CROSS-CULTURAL DATA ON THE ASSOCIATION BETWEEN RULES OF RESIDENCE AND DESCENT GROUP FOR 428 SOCIETIES

RULE OF RESIDENCE	DESCENT GROUP				Total
	Patri- lineal	Matri- lineal	Mat. & Pat.	None	
Patrilocal	177	9	17	78	281
Matrilocal	0	32	2	30	64
Avunculocal	0	15	1	1	17
Bilocal	3	1	1	33	38
Neolocal	1	1	0	26	28
Total	181	58	21	168	428

SOURCE: D'Andrade (1966); reprinted by permission of the publisher.

TABLE 6

DISTRIBUTION OF SELECTED NATIONS BY AVERAGE SIZE OF PRIVATE HOUSEHOLDS, 1945-54 AND 1955-63

AVERAGE SIZE OF PRIVATE HOUSEHOLDS	NUMBER OF NATIONS	
	1945-54	1955-63
2.6-2.9	1	2
3.0-3.3	10	12
3.4-3.7	7	8
3.8-4.1	9	8
4.2-4.5	9	5
4.6-4.9	5	7
5.0-5.3	6	7
5.4-5.7	3	12
5.8-6.1	2	2
6.2-6.5	-	1
6.6-6.9	-	-
7.0-7.3	-	-
7.4-7.7	1	-
7.8+	1	-
Total	54	64

NOTE. Nations were selected to exclude those with populations of less than 100,000 persons and those for which the data were obviously unsatisfactory for calculating an average size of private households. In some cases, the figure relates to average size of total households; these were included only where the difference between the two figures was likely to be very small, that is, where institutional households were a very small fraction of total households.

SOURCES: *United Nations Demographic Yearbook*, 1955, table 9, pp. 216-27; 1962, table 12, pp. 398-413; 1963, table 33, pp. 704-13. Reprinted from Burch (1967: 353), by permission of the publisher.

Minturn and Lambert (1964) use caretaker availability—due to residence and/or daily subsistence activities—as their major antecedent variable in accounting for the use of nonparental caretakers (p. 100):

It seems fairly clear that the intersociety differences on the baby care factor are due primarily to the availability of alternate caretakers. The mothers of Orchard Town [New England, U.S.A.], living as they do in nuclear family households isolated from their kinsmen, spend more of their time in charge of their children than the mothers of any other group. This isolation from a kin group not only means that other women are not around to help with baby care, but that the number of older children who may help is also less, since child caretakers may be cousins as well as siblings. This isolation of the New England mothers is enhanced by the fact that their older children are in school and their husbands work away from home. . . .

Their findings for the care of older children are essentially the same—availability of other caretakers is the "chief factor determining the extent to which this duty falls to the mothers."

If Minturn and Lambert's residential-ecological factor is important in determining the availability of siblings or adults for caretaking duties, we need data both within and between societies on the proportion of time children and adults are present in the vicinity of children in need of caretaking. Given the overall proportion of time present, intersociety comparison of the time present and caretaking could be made. These data would permit comparisons between societies that have older children present but do not utilize them as caretakers and societies with low availability but relatively frequent use. Such situations may differ significantly in their socialization impact and may influence child caretaking

styles; we currently have such data in sufficient detail for only a few societies.

Subsistence economies and tasks and child caretaking are related in complex ways. The most obvious influences are occupations taking fathers and mothers far from their homes and children; similarly, older siblings of a young child who attend school are removed from potential caretaking chores. More elaborate daily routines of a parent and a child caretaker in non-Western societies are common and usually involve partial caretaking, mutual help with chores, and partial availability of adults. Nerlove (1974), for example, compared mothers who began supplemental feeding of their infants before the age of one month with mothers who began such feeding later. She hypothesized that mothers who had heavier involvement in subsistence activities would begin supplemental feeding earlier, in order to free the time that would otherwise be needed for breast-feeding. Utilizing a cross-cultural sample of 83 societies, Nerlove confirmed that the percentage of female participation in subsistence activities (excluding gathering) is related to inception of supplementary feeding (p. 211). Women starting before one month averaged a 38% contribution to subsistence; women starting after one month averaged 27%.

Leiderman and Leiderman (1973) illustrate this relationship between maternal and child caretaking and daily activities in their report on the Kikuyu of Kenya. Their description exemplifies infant care by children in a horticultural society where mothers are only partially available and where kinship, residence, and family sizes permit this kind of nonmaternal infant care. Kikuyu child caretakers are usually 7 to 12 years old, female, and siblings, cousins, or neighbors. They may have had some schooling, but probably very little. The child caretaker's role begins around the infant's fourth month and gradually expands until the child is in charge half the day or more by 7 or 8 months (p. 13):

The caretaker is usually old enough to know the responsibilities of the household, yet young enough to want to be included in the children's games and activities. In her typical day, she gets up with the mother and helps about the house. She frequently accompanies the mother to collect fuel and water, usually taking responsibility for the infant on these journeys. If needed, she goes with the mother to the fields where she either assists in cultivating and planting, or cares for the child while the mother performs her chores. If the younger girl is left at home to care for the infant, she is solely responsible for his care. She provides food if he is old enough to take supplemental food, or, if he is still nursing, she carries him to the mother in the fields. Depending on the interest and sense of responsibility of the young caretaker, she might watch the infant extremely carefully, or do so in a more desultory manner, giving in to the temptation of playing with her friends and siblings while overseeing his activities. However, most of the caretakers take their responsibilities very seriously, and many are genuinely interested in and involved with the younger infants in play as well as in caretaking tasks.

Workload and the type of work performed by primary adult caretakers are closely related variables influencing sibling caretaking. Mothers' workloads are high in simpler societies based on horticulture and lower in complex societies using complex agriculture or industrial work for subsistence. Whiting and Whiting (1975:82-113) argue that the increased workloads of mothers lead to greater expectations of mothers for work and independent task performance by their children. Child care is one of the most important tasks delegated to children by busy mothers, and socialization pressures towards nurturance and responsibility are greater in such societies. Mothers may be less available for child care themselves if they need to perform chores far from home or are performing tasks which cannot easily be interrupted. It is highly likely, therefore, that sibling caretaking is more common in societies where women have more work to do, where the work takes the mother from the home and/or is difficult to interrupt, and where

other circumstances of residence, birth order, and family size make alternative caretakers available.

The antecedent conditions for nonparental caretaking covary, but retain independent influence on nonparental care. The likelihood of nonparental caretaking increases to the extent that each factor is present. A domestic group with a large number of kin and cousins present, a mother with many offspring and a heavy workload, and a daily routine keeping the siblings and other adults available for caretaking would be the *optimal* situation for the development of nonparental and sibling caretaking. Joint families with few children are possible, as is the nuclear, neolocal family unit with nine children spaced two or three years apart. This same large family may have all its children away from home in school many hours a day, leaving the mother alone with young children. Research is needed on the relative influence of these factors and the effects of various combinations on the rate and incidence of nonparental caretaking.

The use of caretakers other than parents is often tied to cultural practices and beliefs only indirectly related to availability. A grandmother, a 10-year-old boy, and a 7-year-old girl all may be available for child care tasks in a household. Who assumes responsibility for which tasks, and what is the decision and responsibility hierarchy involved? Differential treatment of the sexes in childhood and adulthood, the religious status of community members, and ideas concerning the status of the elderly are only some examples of cultural domains which can influence nonparental caretaking practices. The availability of siblings for caretaking is closely related to their use as caretakers and the analysis of their caretaking roles, but use and role definitions involve a number of general, cultural, and contextual considerations as well.

If the antecedents for child caretaking are present, how frequent is such caretaking, and how does it relate to maternal caretaking? One way to examine this issue is to compare the presence of various potential caretakers within and between societies. Whiting and Whiting (1975), for example, provide some evidence from the Six Cultures study (Whiting 1962) on the availability of the mother and other caretakers. Table 7, adapted from that study, shows that the percentage of field observations in each of the six cultures of children aged 3-11 during which the mother was present is 32-41% (with the exception of Taira). The frequency of housemates' being present during the observations is more variable, ranging from 63% to 33% and averaging 50%. *New England is the only setting where the mother was present in the observations more often than siblings.* Table 7 also shows the greater variety of available caretakers in different societies, including opportunities for shared and indirect caretaking.

Given this availability, how often were various household members engaged in caretaking? The Six Cultures study does

TABLE 7

PERCENTAGE OF OBSERVATIONS IN WHICH MOTHERS, HOUSEMATES, AND COURTYARD COUSINS WERE PRESENT FOR SIX CULTURES

SOCIETY	PERCENTAGE OF OBSERVATIONS		
	Mother Present	Housemates ^a Present	Courtyard Cousins Present
Nyansongo, Kenya	32	63	40
Juxtahuaca, Mexico	38	63	29
Tarong, Philippines	41	56	39
Taira, Okinawa	9	46	1
Khalapur, India	37	43	4
Orchard Town, U.S.A.	47	33	1

SOURCE: Whiting and Whiting (1975: tables 9 and 10).

^a Khalapur housemates include cousins; for other societies, housemates are almost exclusively siblings.

not directly record the amount of time a child spent as a caretaker. Some indirect measures are available, however. The data indicate that child caretaking of infants was not common in the Taira, Khalapur, or Orchard Town samples, but that in Nyansongo, Juxtlahuaca, and Tarong the sampled children were clearly interacting some 25% of the time with infants. The other three cultures averaged about 6% (Whiting and Whiting 1975:98).

Even higher figures were found in a study of rural and urban Abaluyia children in Kenya (Weisner 1974). Observations of children were done for 30-minute periods in the home setting during the day. The Abaluyia, much like the Gusii of Nyansongo, have patrilineal descent and patrilocal residence, with an average of 8.8 persons per homestead unit. Their subsistence economy is based on horticulture and some cattle-keeping, along with extensive reliance on urban wage-labor migration. Alternative caretakers are available in most homesteads. Table 8 shows the percentage of all coded interactions in which the child being observed was a caretaker of a younger child, usually a sibling. Overall, 30.7% of all children's interactions took place in the context of caretaking. Girls were in the caretaker role more than twice as often as boys, and older children were more often caretakers than young children. In about half of these child caretaking situations, the mother was present and perhaps also caretaking an infant or child, but was sharing caretaking duties with one of her children.

Minturn and Lambert (1964) report on interview data with the mothers in the Six Cultures study. Mothers were asked what proportion of time they were in charge of infants and toddlers (birth to 18 months old). Orchard Town mothers spent a greater proportion of their time in charge of infants than those of any of the five other societies. Regardless of age and sex of child, 92% of the U.S. mothers usually or always cared for their babies by themselves (p. 93). The other five societies had significantly less maternal care and did not differ significantly among themselves in the proportions reported by mothers (p. 95). Mothers were also asked about their care of older children (ages to 11). Minturn and Lambert's scales ranged from "mother takes complete care of the child" to "mother does none of the caretaking" (p. 103). The Orchard Town and Nyansongo mothers did proportionately more caretaking of children than the other four societies (p. 106); the Nyansongo mothers reported child care related largely to supervision of chores.

A question related to frequencies of child and maternal caretaking is the interaction between them. If mothers care for their children, do children care for other children less often? If the total care during the day is high, or if shared caretaking between mothers and children is common, both mothers and children could be frequent caretakers, or mothers and children could be caretakers at different times of the day. Very little

information is available to answer this type of detailed question. The best effort comes from Minturn and Lambert, who rated 76 societies on proportions of infant and young child care by mothers, fathers, nonparental adults, and children. Unfortunately, the rating of the amount of time older children were caretakers of children other than infants had to be excluded because of unreliability of coding (1964:170). There are, however, reliable data on infant caretaking, contrasting children and mothers in their proportion of caretaking time. The evidence available suggests that for infants, child and mother caretaking are mutually exclusive. The more the mother was rated as caretaking, the less time other children and fathers spent caretaking infants. At the same time, mothers who spent more time caring for infants also spent more time caring for older children. Since ratings could not be made of child caretaking of older children, the relationship between mothers' caring for older children and other children's caring for them is not known.

Gallimore, Boggs, and Jordan (1974) note that, in the semi-rural Hawaiian community of 'Aina Pumehana, while domestic tasks tend to be performed by either mother or offspring, there is continuous *sharing* of child care. As the amount of child help available increases, mothers report that they do less domestic work; however, even when mothers report active contributions by children to caretaking, they describe themselves as actively involved in child care. Gallimore et al. suggest that mothers who report such involvement may be reflecting a continuing *concern* rather than actual work contributions. Although they may not actually supervise directly the activities of their youngest children, they may continue to mediate their concern through another, older child: "Mrs. H. suddenly stopped in mid-sentence. 'Who's that yelling?' I [fieldworker] noticed for the first time that one of the kids was yelling. Charleen [one of the daughters] replied. 'Dan.' 'What's he yelling for?' Charleen said, 'I don't know.' No action was taken although the yelling continued for 3 or 4 minutes" (p. 89). The mother was satisfied by the implied assurance of the responsible caretaker that the younger child was in no need of immediate attention. While she might well report to an interviewer that she takes care to see that her children are properly monitored, she may actually mean that she sees to it that their sibling supervisors are on the job. If Charleen had been incorrect in her judgment that Dan could be safely ignored, she would have been sharply reprimanded and very likely punished by her mother.

The interaction between maternal and other caretakers is influenced by subsistence and daily routines, since availability of alternative caretakers varies with daily activities. The determination of shared caretaking is also affected by the *type* of caretaking. Overall supervision by a mother often involves the use of children as assistants. Thus it is likely that maternal caretaking style (full care versus indirect care, for example) must be considered in evaluating relative proportions of care throughout the day by different caretakers. The analysis of relative proportions of child care exemplifies a central point: child caretaking must be viewed in social context.

The multiple caretaking system observed in 'Aina Pumehana illustrates the interaction of multiple factors in determining the extent and kinds of child caretaking. Families are moderately large (averaging 6.9 persons) and reside in separate households, often with kin living nearby, though not always on contiguous houselots. The community was begun in the 1920s as part of a homesteading program of the Department of Hawaiian Homelands. Fathers work in the wage economy, and about half the mothers report part-time or temporary employment. Children attend school for nine months of the year. Household work is confined to domestic duties, child care, and yard care. Some families maintain small gardens and

TABLE 8

PERCENTAGE OF ALL INTERACTIONS IN WHICH THE OBSERVED CHILD WAS A CARETAKER, FOR RURAL AND URBAN KENYA CHILDREN AGED 3-8

	PERCENTAGE
Girls	
3-5.....	34.0
6-8.....	60.0
Total.....	41.5
Boys	
3-5.....	6.2
6-8.....	30.0
Total.....	15.8
Grand total.....	30.7

raise a few animals to supplement their diet, but this is not a major economic factor.

Gallimore et al. describe child caretaking as a key feature of the 'Aina Pumehana "shared-function" family organization. Beginning at relatively early ages (usually 4–5 years), Hawaiian children make significant contributions to domestic life as part of a system in which parents, extended family members, sometimes neighbors, and, of course, children share the family work. Sharing functions helps a family to cope with changing conditions and emergencies. For example, in one family the mother assumes some of the duties performed by the children during the months in which she is "laid off her job at the cannery"; the father does most of the cooking. Assumption of child care responsibilities by children begins relatively early: "One of the K girls, Mrs. C's niece, wandered over to the C's yard today, staggering under the weight of her younger brother, who must be about two years old and big for his age. She is only about nine and can barely lift him, and she seems to take her childcare duties as a matter of course" (p. 124).

Having begun with a focus on maternal caretaking, Gallimore et al. credit Levy (1968) and the Hawaiian adolescents with whom they worked for their tardy appreciation of the role of siblings in Hawaiian socialization. They go on (pp. 123–24):

A mother who was at first somewhat bewildered by our questions answered one question in a way that reflected the responsibilities delegated to siblings. . . . At the same time, her responses . . . illustrate why our initial focus on the mother-child dyad was culturally inappropriate.

Q. Did you have any trouble with her [toilet training]?

A. Oh, I didn't [have anything to do with it]. Sister teach 'em that.

POSSIBLE CORRELATES AND CONSEQUENCES

The possible effects on a child—as provider or recipient—of child caretaking which we could propose are limited only by imagination. Data necessary to specify salient variables and their relationships and effects are naturally no more available than any others on this topic. A number of intriguing possibilities have, however, been explored. We shall review eight sets of hypotheses about relationships between child caretaking and other variables. The variables are: (1) mother-child relationships and attachment; (2) conceptions and emergence of childhood stages; (3) formation and organization of play groups; (4) development of social responsibility; (5) sex differences; (6) development of personality differences; (7) development of cognitive-style differences; and (8) motivation and classroom performance.

MOTHER-CHILD RELATIONSHIPS

Some evidence that family size and, presumably, availability of child caretakers are related to mother-child relationships is provided by Nye, Carlson, and Garrett (1970). Mothers in their sample with three to five children were less content with their parental role than mothers with one or two or with more than five. Possibly one reason mothers with more than five enjoyed the role more is that their duties were reduced by sibling helpers.

Gallimore, Boggs, and Jordan (1974) suggest that *assumption of child care responsibilities by siblings affects parents' interactions with their children*. In 'Aina Pumehana, more mutually pleasant interactions are possible because siblings assume many child care tasks. For example, children may be exposed to a variety of experiences on a trip to a distant urban center that might have been missed if siblings had not made child care on such expeditions less a burden on the mother. The Hawaiian case also suggests (p. 137) an alternative interpretation of the

"rejection of toddlers" hypothesis often mentioned in studies of Polynesian child rearing (Gallimore, Howard, and Jordan 1969, Levy 1969, Mead 1961, Ritchie 1956):

Early mother demands and the alteration in mother-toddler interaction can be conceptualized, not as a rejection of the child, but rather in terms of his entry into the family system. Once the toddler is old enough to seek care in this system, mothers presumably reduce the proportion of caretaking they are willing to assume and come to regard many demands as intrusive and more properly directed at siblings. Pumehana mothers pressure their toddlers to seek help and caretaking from others at relatively early ages—particularly for overtures regarded as intrusive. This is not as difficult as it might be were the mothers the exclusive caretakers from the birth of the child; in fact the infant's needs . . . are met by others as well as the mother. What changes in the "shift" is the proportionate share of caretaking and training assumed by mothers, siblings, and other adults respectively.

By the same token, access to caretaking roles provides older children an opportunity to learn and practice adult-like functions. Exercise of these functions in turn allows for diversified parent-child relationships—for example, circumstances in which parents accord their older offspring some measure of enhanced status.

Variation in the quality of mother-child relations is one important possible consequence of child caretaking. Differential attachment to the mother as primary caretaker is another. Indeed, Ainsworth (1967) uses such variation in one of the earliest attachment studies, carried out among the Baganda of Uganda. The hypothesis from a number of sources is that *multiple caretaking lessens attachment to the mother* and strengthens attachment to other caretakers and that separation from the mother is less stressful for young children exposed to a multiple caretaking environment.

Leiderman and Leiderman (1973) illustrate the relationship of child caretaking to attachment. They contrast monomatric and polymatric family systems in East Africa; the distinction is based on the amount and frequency of care the infant receives from the mother versus other caretakers and the types of care various caretakers provide (p. 3):

In the monomatric family, the mother is certainly the main purveyor of physical and social stimuli for the infant; thus, she becomes the sole central figure in the life of the infant. If we examine polymatric systems, on the other hand, we may find two or more individuals providing both physical and social care to the infant, as might be the case in a residential nursery in the Western world. Or we may find that the mother remains the primary agent for meeting the physical needs of the infant, while another individual meets his social needs. It is this latter circumstance, typical of many societies where the mother has multiple tasks in addition to infant care, which constitutes the polymatric caretaking system. . . .

Polymatric families utilizing child caretakers should have infants with lessened attachment to a single primary caretaker and lessened separation-anxiety reactions when separated from the mother. Polymatric families utilizing other adult caretakers should have a similar result. We are not aware of studies directly comparing the effects of these two different kinds of polymatric families on attachment-related behaviors of young children. The polymatric concept of family caretaking must be further elaborated, however; more than three children in a family may well be a qualitatively different situation in terms of child caretaking than two or three, for instance. Further, attachment depends on the quality and timing of care, and on situational factors during separation and attachment, in addition to caretaking patterns. These factors also need to be considered.

CONCEPTIONS AND EMERGENCE OF CHILDHOOD STAGES

The role of the child in caretaking duties may also be closely related to the theories concerning the stages of childhood

characterizing a cultural or subcultural group. The point at which a child is given care responsibilities and the point at which a child is considered old enough to be given to other children to be looked after are common dividing points between culturally defined stages of maturation.

Stages in a child's growth are commonly distinguished in most cultures on the basis of a mixture of physical, cultural, and cognitive criteria. The ages and labels vary widely in different cultures; however, these stages usually include (1) infancy, (2) late infancy and the toddler stage, (3) young childhood, from about 3 to 7-8, (4) later childhood, to 12-13, and (5) adolescence. Each stage has associated with it certain beliefs about the child's capacities and needs. Caretaking responsibilities vary according to the stage and conception of the child at each period. The child caretaker is expected to behave differently and is given differential responsibility by stages. The charge is treated differently as well.

Family caretaking patterns may influence the timing of a child's movement from one stage to another. If children begin tending younger siblings at age 4, a 4-year-old with a 2-year-old sibling is pushed into responsible caretaking roles immediately; the 2-year-old is "pushed out" of the mother's presence as well. If the 2-year-old has no older sibling, he may stay with the mother and be treated more as an infant-toddler for another year or more. Similarly, the 4-year-old with no younger sibling to care for is freer to roam and has fewer responsibilities. Thus there is a constant interaction between (1) physical maturation of a child, (2) cultural conceptions of a child's state of development, and (3) household and familial circumstances concerning caretaking duties which influences when and how the child moves from one stage to another. Child caretaking is similar in these respects to most other tasks children are asked to do. We could find no study of the relationship between childhood stages as defined by Western child-development specialists and concepts of developmental periods as conceived by other cultures. Child caretaking will certainly be an important element in empirical examination of the issue.

ORGANIZATION OF PLAY GROUPS

Dennis's (1940) classic study of the Hopi child shows how the organization of play groups is influenced by the extent to which caretaking duties are a part of Hopi girls' daily lives (pp. 48-49):

There are roughly three kinds of play groups. One of these consists of the young girls with their charges. These girls are usually under twelve years of age, because, as we have seen, older girls must stay at home. One finds, therefore, play groups of nursemaids, made up of girls below twelve years of age, with one-, two-, and three-year-olds who are in their care. There are many little circles of this sort to be seen at almost any time of the day.

Play groups are not always as age- and sex-specific as among the Hopi. Children also play and roam together in larger "packs," with older children acting as general supervisors. Burrows and Spiro (1953:262) report that children's play groups on Ifaluk in the Central Carolines consist of almost all community children between the ages of 2-3 and 9-10. Infants are constantly with parents or other adults, and children older than 10 have other economic responsibilities. These large groups of children have older girls as supervisors; this task is an important social responsibility which is not shared with the boys, who have often formed their own groups by the age of 10 or so.

The play groups of the caretakers may be restricted by sex, as well as in the opportunities available to roam very far from the home. The charge's contacts can also be influenced by his/her nurse's choice of friends. Mead (1961:42) reports, for instance, that Samoan children under the age of 6 or 7 do not even come in contact with other children if their older-child

caretaker does not happen to be friends with the nursemaids of those children. Thus the play groups of younger children are indirectly structured by the caretaker's peer associations. Most Samoan girls go through a period of restricted social and physical mobility, since the principal activity of young girls is baby tending (1961:82) and most children are watched by siblings.

Child caretaking does not always influence children's play groups, simply because caretaking may sometimes be very informal and/or associated with other tasks. Younger Dusun children, for instance, play with many other children even while caretaking and are not particularly restricted: "If a younger child carries an infant, he often slings the baby on his back; it isn't unusual to see a 3- or 4-year-old running hard in play with his infant brother or sister on his back, head and limbs bobbing violently as the game proceeds" (Williams 1969:66). Both Jocano (1969:78) and Williams (1969:113) comment on the nonwork character of child caretaking.

Children's associations are not necessarily dependent on caretaking patterns, but the two variables are frequently closely related. *Child caretaking may affect the sex composition of play groups and the physical and social mobility and exploration possible for certain children*; and, where caretaking is not limited to one's own siblings, *it may shape contacts with children not in one's immediate family.*

DEVELOPMENT OF SOCIAL RESPONSIBILITY

Whiting and Whiting (1975:106) hypothesize that *child care promotes the development of pro-social, responsible, and nurturant behaviors in children*:

The assignment of infant care implies that the parents can trust their child to be responsible. The care of infants requires constant attention and enough experience to be able both to predict and change behavior. A child nurse must be able to guess the needs and motivations of his or her small charge and learn what behavior is required to satisfy these needs, the essence of nurturance as we have defined it. The consequences of failure are clear: ignorance or negligence can lead to injury or death.

Whiting and Whiting find some evidence that patterns of infant interaction tend to generalize to interactions with peers and adults for pro-social behaviors, but evidence is weaker and possibly confounded with coding bias for sociable, nurturant, and aggressive behaviors (pp. 160-63).

The connection between early responsibility and child caretaking may not be an explicit belief of parents, although it is often culturally recognized. Wolf (1972) comments that parents in her Taiwan sample do not really expect children to "understand" things and to reason until they are about 6. Girls, however, because of their early caretaking responsibilities for siblings, must in fact obey and be responsible for the interpretation of social rules earlier than that, and much earlier than boys (p. 65):

It is not unusual for a four-year-old girl to be put in charge of her two-year-old brother, though the mother will insist that both stay within her hearing range. Parents may think they do not "expect" obedience of preschool children, but a mother will severely scold or even beat a four-year-old girl who does something that endangers her small brother.

Williams (1969:72) provides some suggestive field data to support this notion of early responsibility associated with caretaking duties.

This development of social maturity does not come easily. Child caretakers are beset by parental demands, on the one hand, and demands from younger children, on the other. They often have many other chores to perform in addition to their child tending duties. Mead, in a remarkable passage, evokes

the enormous responsibilities devolving on young girls who are both caretakers and housekeepers in Samoa (1961:28):

It may be said with some justice that the worst period of their lives is over. Never again will they be so incessantly at the beck and call of their elders, never again so tyrannised over by two-year-old tyrants. All the irritating, detailed routine of housekeeping, which in our civilisation is accused of warping the souls and souring the tempers of grown women, is here performed by children under fourteen years of age. [These tasks] . . . haunt these children from morning until night.

SEX DIFFERENCES

If children are more responsible and nurturant if they are expected to care for younger children, then girls are likely to be more nurturant and responsible, since girls appear more often to be assigned child caretaking tasks than are boys. Women are assigned the primary responsibility for the care of infants and young children in the overwhelming majority of societies; daughters are also assigned such chores more often than sons, probably as training for anticipated adult roles (D'Andrade 1974). Barry, Bacon, and Child (1957) found that girls were more often expected to be responsible and nurturant than were boys. Ember (1973) observed Luo boys in Kenya who were expected to perform tasks and chores (including child caretaking) usually assigned to girls; such boys displayed more "feminine" social behaviors than boys who were not needed for such tasks. Whiting and Edwards (1973) compared boys and girls in seven societies (the Six Cultures, plus the Kikuyu of Kenya) on directly observed indices of nurturant and responsible behaviors. Older girls, aged 7-11, offered help and support to others (nurturant behaviors) more often than did boys; there were no such differences for children aged 3-6 (p. 179). These authors interpret the greater nurturance of older girls as due to the assignment to girls of more child care duties, particularly infant caretaking, as compared to boys (p. 181).

Younger girls also proved more responsible (offered more responsible suggestions) than younger boys (aged 3-6), but there were no systematic, significant differences among older children. Whiting and Edwards again interpret this finding in terms of differential task performance in general and caretaking in particular. Girls are assigned responsible tasks more often than boys between the ages of 3 and 6; from 7 to 11, boys take on more chores and so act more responsibly, but girls are more likely than boys to be sibling caretakers (pp. 181-82). The sex differences in nurturance and responsible behaviors occur only at particular ages and are not uniform across all cultures. It is unlikely, therefore, that there is any innate "drive towards nurturance," including child caretaking, among girls. Rather, the *differential assignment of caretaking tasks to boys and girls*, a difference which appears to be widespread cross-culturally, *leads to changes in girls' role expectations and tasks, which in turn lead to increased nurturance and responsibility in girls* (p. 184):

In sum, our evidence suggests that the nature of the tasks assigned to girls is the best predictor of four of the five primary types of "feminine" behavior . . . , since (a) the tasks require more frequent interaction with infants and adults and (b) the nature of the tasks themselves involves care of others—offering help and comfort to infants, preparing and offering food to the entire family . . . all these tasks require the girl to be tolerant of interruptions and demands for succorance, and require her to be constantly alert to the motivational states of others—behaviors possibly related to field dependence, a quality commonly attributed to women. . . .

Thus it is possible to formulate the general hypothesis that most societies high in child caretaking provide earlier and stronger sex role training for girls.

In contrast, Maccoby and Jacklin's (1974) exhaustive review of sex difference studies does not report sex differences in

overall nurturance or altruism. Their book, however, is dependent on studies done with American, largely White, children and adults, and on parent-child relationships. They are well aware of this difficulty; they are also aware of the absence of naturalistic and directly observed reports of caretaking (pp. 222-23):

research is rare that involves observations of young children's giving of comfort and assistance to one another in naturalistic situations. . . .

The major exception of the no-difference trend [on sex differences in helping behaviors] . . . is the cross-cultural work of Whiting and Pope [Edwards]. Either girls are more consistently trained to be help givers in other cultures than our own, or the major experimental studies of help giving have not sampled the situations in which female helpfulness would be most apparent.

Both the cross-cultural and situational-naturalistic variables suggested by Maccoby and Jacklin as affecting research in this area are operating in the study of child caretaking. American children engage in less child caretaking than children in most other cultures, and the situations in which girls display caretaking activities are not typically recreated in a laboratory setting.

PERSONALITY DEVELOPMENT

Several studies, most of them ethnographic accounts of child caretaking in other cultures, have made some attempt to generalize about the effects of child caretaking on the development of individual personality differences in children. Mead (1968) provides one of the earliest and clearest formulations of one important hypothesis concerning global personality variations and child caretaking. Mead contrasts her Samoan and New Guinea experiences with sibling versus parental caretaking and argues that *sibling caretaking restricts the development of personality differences* in both children and adults. Mead notes that in Manus, fathers play a dominant role in the care of children under 5, whereas in Samoa older siblings are in charge. Manus men are able to shape their children with their own individual style and personality, but the Samoan system of sibling caretaking is a leveler of such differences (p. 109):

The care of young children by slightly older children, themselves without defined personalities, perpetuates a far lower level of development of social individuality. The gifted man in Samoa does rise to the top, but he never comes in contact with his young children. He is given no opportunity to pass on the assurance which he has gained after years of apprenticeship.

Mead speculates on the effects of any system of caretaking which utilizes neither father nor mother. She suggests that a "fostering group" is a barrier between the parents and the child and creates greater similarity in personality across children and less similarity between parents and their offspring.

This hypothesis depends on several assertions: (1) that child caretakers have "undefined global personalities" relative to parental caretakers in a given culture; (2) that there is less variability in the caretaking styles of children than in parental styles; and (3) that "social individuality" in adulthood is determined in large part by early socialization experiences related to caretaking patterns. Each assumption needs more detailed review. The same cautionary note applies to two related discussions (Levy 1968, Ritchie 1956). The possible effects of child caretaking are presented by Levy (1968:594) as the development of an "easygoing or apathetic 'you can't fight city hall' " orientation to life:

If there are no one or two people in power in the family who are identifiable and susceptible to influence by the child, then he does not learn that there is a key point in the system which one can influence by charm, cleverness, persistence, or stubbornness. One cannot cope by a focused manipulateness and an intense concern

with key figures, but by obeying (on the minimum level necessary to stay out of trouble).

Ritchie (1956:47) describes the effects of sibling caretaking on value formation in a similar way:

The Maori child is typing himself against an older sibling's concept of the world. His perceptions of adult behavior and adult roles are being strained through the perceptions of his older sib. The latter will only be approximate, varying in their degree of conformity according to the age, sex, intelligence, and experience variables of the older child. In this transmission of percepts from a child's view of the adult world to a child's view of the world, the value structure is thrown into sharp relief. The limited comprehension of the older child requires that the values he sees around him be used in modifying the behavior of younger children; he cannot therefore make do with tentative approximations but must resolve his percepts into a formal structure from which he is able to direct and instruct younger children. Originality departs. The value structure sets hard, prematurely, and the child enters a plateau of value-learning.

Taken together, the Mead, Levy, and Ritchie views suggest that personality, attitudes, and values may be influenced rather dramatically by child caretaking. Presumably being a child caretaker may also affect personality development. The suggested consequences must, however, be interpreted in terms of the role demands a child must eventually meet as an adult. While child caretaking may not foster individual differentiation, it may prepare well for societies in which personal achievement and independence are not common options. The sibling group may approximate the kin group in which, as an adult, the child will need to function. Personalities shaped by child caretaking may not match implicit Western norms, but are no less functional as a result.

COGNITIVE STYLE AND COGNITIVE DEVELOPMENT

The widely studied variable of cognitive style has been suggested as a particularly valuable indicator of socialization effects and has been found related to cross-cultural variations in child-rearing practices (Witkin et al. 1974:2; Witkin and Berry 1975). Witkin et al. found that children in Holland, Italy, and Mexico were more likely to be perceptual-field-dependent (a cognitive-style variable) if they were raised in communities which stressed "social conformity" in child rearing. Participation of siblings and other children in socialization was not, however, systematically included in their descriptions of child-rearing practices. Using measures similar to those employed by Witkin et al., Park and Gallimore (1975) found rural Korean children more field-dependent (less able to disembed part of a field from the whole) than urban Korean children. Since the rural Korean families not only stress social conformity—replicating the Witkin et al. findings—but also make use of sibling caretakers, Park and Gallimore speculate that *family organization of caretaking may be an important factor in the development of cognitive style*. The basis of this speculation is Cohen's (1969) report that shared-function families tend to produce field-dependent children.

A direct relationship between shared functioning, child caretaking, and field dependence remains to be demonstrated. However, the sorts of close, immediate-experience interactions that would occur in day-to-day sibling-sibling caretaking could be reasonably expected to influence development of cognitive style (Ritchie 1956). It is plausible that child caretakers might be less adept than adults at prompting or teaching children to note details and component parts of an embedded stimulus or less inclined to do so. We know of no studies in which child field-dependence has been related to family variations in use of child caretakers, either within or between cultures.

A number of investigations have shown significant correlations between sibling structure and measures of achievement and ability (e.g., Sutton-Smith and Rosenberg 1970). Cicirelli (1972, 1973) used laboratory concept-learning tasks to study the effects of sibling interaction. In the first study (Cicirelli 1972), older sisters were significantly more effective teachers of younger siblings than were older brothers. Also, older sisters tended to use a deductive teaching method (explaining and describing, demonstrating and illustrating attributes, selection of examples). In a second study, using an object-sorting measure of classification behavior, Cicirelli (1973) found children working with siblings produced more object groupings. Children aided by siblings four years older made larger groups and left fewer objects ungrouped than those aided by siblings two years older. Weak but statistically significant positive correlations were found between number of groupings and sibling interaction in the form of older sibling's nonverbal expression or gestures of encouragement. A number of forms of sibling interaction were also negatively related to number of groupings. These results confirm that *sibling interaction may have an impact on cognitive development*, but do not clearly reveal the process. Cicirelli offered several plausible alternative conceptions, including the notion of social facilitation—that the mere presence of an older sibling serves to arouse or energize the younger.

MOTIVATION, LEARNING, AND CLASSROOM PERFORMANCE

Sutton-Smith and Rosenberg (1970) detail a number of motivational variables that are affected by sibling-sibling status and influence. Evidence of the effects on motive development of sibling caretaking is, as for the other aspects we have reviewed, either severely limited or indirect.

For example, McClelland's (1961) analysis of the origins of high need for achievement (n Ach) is focused on ages of children at which child caretaking is likely to occur; however, McClelland considers only parental influences on n Ach. Among the socialization experiences McClelland describes as significant n Ach antecedents is the timing of parental demands for independence and autonomy. Pressures for independence either before or after the 6–8-year range are associated with low n Ach. The "too-early"-demands hypothesis—*independence training before age 6—is suggested by data collected from low-income Black and White U.S. samples*; McClelland argues that early demands may actually reflect parental pressure for nondependence rather than efforts to teach independence. Pressure for nondependence may be indicated if parents reject a young child's overtures for help in getting dressed for school, leaving him to learn on his own, or scold a child for failure to complete homework without providing assistance or encouraging better time scheduling.

In the Hawaiian, African, and other cases we have reviewed, it appears that early parental demands for nondependence serve in part to shift dependent overtures to older siblings, who provide nurturance and training and, in turn, pressure for independence. Whether the antecedents of n Ach can include sibling pressure for independence remains to be demonstrated; the same is true of the question of effects on motive development when parents demand early nondependence but continue to encourage dependence on siblings. Both possibilities are certainly worthy of investigation. In any event, McClelland's hypothesis that "early demands" may lead to low n Ach might need qualification in social groups that rely on child caretaking.

Gallimore and others propose that reliance on *child caretaking is a critical antecedent of affiliation motivation*, a variable

which has figured prominently in accounts of Hawaiian-American culture and behavior (cf. Gallimore 1972, Gallimore, Boggs, and Jordan 1974, Gallimore and Howard 1968, Howard 1974). Affiliation motivation is defined as the tendency of individuals to attend and orient to others, a habit which begins to develop when the Hawaiian toddler learns to orient to and be influenced by a variety of caretakers. The pattern of being interdependent and affiliating with (orienting to) others is a significant feature of Hawaiian life and is fundamental to individual motivation. The importance of affiliation motivation is reflected in significant correlations between fantasy need for affiliation and tested school achievement, as well as performance on experimental tasks (Gallimore 1972, Gallimore, Boggs, and Jordan 1974). Furthermore, MacDonald and Gallimore (1971) found in a number of classroom studies that Hawaiian-American students perform at higher levels if classrooms are organized to allow for affiliative interactions such as teamwork or sharing of earned privileges among peers. In either case, the opportunity to interact or affiliate with peers apparently enhances academic motivation and performance. Whether peer interaction is more motivating for those from families with high child caretaking is a question that has not been directly tested.

MacDonald and Gallimore (1971), Gallimore and Tharp (1976), and Tharp and Gallimore (1974) also report that Hawaiian students are highly responsive to variations in teacher use of social reinforcement, such as praise and other forms of approval. This might reflect Hawaiian patterns of orienting to positive and receptive others or simply the widely observed benefits of positive teacher behavior. It is at least plausible to suggest, however, that effective teacher use of social reinforcement techniques may be more critical for children raised in multiple caretaking settings than for those socialized by one or two adults. In the latter one would expect children to attend more to teachers, follow directions, and in general be more susceptible to social influence by adults. Indeed, the frequent observation by teachers that children of some American cultural minorities have "less motivation" and "shorter attention spans" may be attributable to differential habits of attending to adults versus peers engendered in large families which rely on sibling caretaking. Thus, for children from multiple caretaker homes, the conditions of the typical classroom may not reliably elicit and sustain attentiveness and task motivation. Accustomed to sibling care, such children might be inclined to attend to peers rather than teachers and individual work, a consequence that might be inappropriately interpreted by teachers in terms of behavioral, motivational, and attentional deficits.

Some evidence that sibling care may affect Hawaiian child classroom habits is provided by Gaile (1974). Using an indirect measure of sibling care frequency—number of siblings in the family (evidence that the two are related in Hawaiian families has been cited above)—Gaile found a significant negative correlation between family size and attentiveness to the teacher in a rural Hawaiian classroom. Gallimore, Tharp, and Speidel (1974), in an urban setting, found a significant correlation between boys' attentiveness to a peer tutor and the degree to which male siblings assumed child care responsibilities. Sibling care ratings were obtained from summarized field notes. Similar analyses of female child caretaking yielded insignificant correlations. In another study of peer tutoring attentiveness, Fukuda (1975) reported similar results for a rural Hawaiian school; males from families reporting high child caretaking were more attentive. There was no difference for females. Gallimore, Tharp, and Speidel suggest that reported involvement of males as caretakers indexes family characteristics strongly related to classroom attentiveness; in practical terms, however, the difference in attentiveness is relatively trivial. Thus the findings are at present largely of theoretical interest.

SUMMARY AND CONCLUSIONS

Socialization and enculturation research in anthropology has close ties to work in psychology and child development. In spite of this relationship, child caretaking research is virtually unknown in psychology and largely limited to ethnographic reports in anthropology. At the same time, there has been extensive cross-disciplinary borrowing of theories and data in the study of parental influences on socialization. This paradox points up a problem discussed by Edgerton (1974) in his review of recent cross-cultural research in psychology. Edgerton contrasts the experimental, laboratory methods of psychology with the naturalistic, field-based research of anthropology and suggests that an integration of these traditions is essential to productive collaboration between the fields. Child caretaking is a phenomenon that depends on field, naturalistic, and contextual kinds of data for the discovery of its existence, much less its correlates and antecedents. Parental caretaking is a subject which is amenable to experimental research and which utilizes retrospective questionnaires and psychometric data. Child caretakers cannot readily be interviewed in the same ways, they cannot easily fill out standardized questionnaires, and their responsibilities for child care can only be understood in the context of the home setting and interaction with other caretakers (although parents can report on many aspects of child caretaking responsibility). Psychology has not dealt with child caretaking because its methods do not encourage the field research needed to study it. Anthropology has discovered child caretaking in the family and community context, but its theories of enculturation and socialization have not been adequate for postulating correlates and testing comparative generalizations. Experimental anthropology (Cole et al. 1971), utilizing a mix of situational-natural and experimental techniques, would seem to be well-suited to the study of child caretaking. Mutual borrowing between psychology and anthropology has been productive in the study of parental socialization; the same collaboration can and should be extended to child caretaking.

Child caretaking also has an important role in the consideration of alternatives to maternal caretaking (cf. Bernard 1974, Greenfield 1974). Thus its study contributes to the public debate in the West over female roles and mothering. Day care centers should perhaps involve older children and siblings in child care, and other kinds of restructuring of caretaking should involve children as well as adults. Involving siblings along with parents in behavior-change programs has been demonstrated to be a useful clinical approach to children with behavior problems (Miller and Cantwell 1976, Miller and Miller 1976, Steward and Steward 1976). There is certainly no evidence that children suffer when cared for in part by older children as opposed to their parents. Indeed, aid and support to a mother from children or adults is likely to increase reported contentment with the mother role and probably reduces the stress mothers might feel if they were the exclusive caretakers for extended periods (e.g., Bernard 1974). Child caretaking thus contributes to role flexibility for mothers and caretaker diversity and skills for children.

There are few topics in socialization that can match child caretaking for number of hypotheses and problems to be explored. We hope the next review of this area will have less occasion to report that data are sparse or nonexistent.

Comments

by MARGARET K. BACON

Department of Anthropology, Livingston College, Rutgers University, New Brunswick, N.J. 08903, U.S.A. 20 XII 76

This article calls attention to a neglected aspect of the socialization process. Cross-cultural evidence clearly indicates that

child and sibling caretaking of younger children is an important aspect of child care in most societies. It is also probably more prevalent in Western industrialized nations than is generally recognized. Yet, as Weisner and Gallimore indicate, the effect of caretaking by children on either the caretaking child or the cared-for child has received relatively little attention in the socialization literature.

As a variable in the socialization process, child and sibling caretaking can be analyzed in three major contexts: (1) as an independent variable related to the socialization of the caretaker, (2) as an independent variable related to the socialization of the child who is cared for, and (3) as a dependent variable influenced by various environmental factors which presumably affect the degree of caretaking by children, such as the availability of older siblings, the involvement of mothers in subsistence activities, etc.

In their wide-ranging discussion, Weisner and Gallimore provide descriptive evidence pertinent to these three main areas of inquiry, although they do not always clearly maintain the distinction among them. They also report psychological research related to several areas of hypothesized relationships between child caretaking and other sets of variables. In some cases these are direct relationships (e.g., between child caretaking and the development of social responsibility). In other cases the relationship is tangential (e.g., with achievement motivation, attachment behavior, field dependence, or "cognitive style").

A simple quantitative test of some of the relationships suggested might be made by means of the Barry and Paxson (1971) coding with regard to the principal caretakers and companions of children in infancy and early childhood. These codings make it possible to dichotomize the sample of 186 societies on the basis of whether or not the principal caretakers are children and to compare the resulting two groups of societies on other possibly related variables. For example, it would be of interest to compare the ratings of the degree of emphasis on the development of motor skills in societies high and low on the use of child caretakers. Ratings of the indulgence of infants might also be examined in this way, as well as ratings of the degree of involvement of mothers in the subsistence economy. A more extensive analysis of these and other variables would, of course, depend on the development of a set of ratings more specifically related to the child-caretaking variable.

by HERBERT BARRY, III

Department of Pharmacology, School of Pharmacy, University of Pittsburgh, Pittsburgh, Pa. 15261, U.S.A. 4 XII 76

The article by Weisner and Gallimore is a good example of effective use of diverse methods for studying cultural practices. The studies reviewed include all three types specified by Rohner (1975:32): cross-cultural surveys, intracultural community studies, and psychological research on individuals. All three types of research give convincing evidence that children may be important social agents in the development of infants and younger children.

Weisner and Gallimore emphasize the need for further information. Accordingly, I shall identify some attributes of societies in which the principal companions and caretakers are children during infancy or older children during early childhood (see their tables 3 and 4, summarizing the data reported by Barry and Paxson 1971). Among 116 societies coded for both stages, children are the principal companions and caretakers of infants but not younger children in 23 societies and of younger children but not infants in 32 societies. This function is performed by children in both stages in only 14 societies and in neither stage in the remaining 47. Therefore, the function of children as principal companions and caretakers usually in-

volves different societies, which may differ in various attributes, depending on whether this function is applied to infants or to younger children.

Societies in which children are the principal companions and caretakers during infancy are generally at a high but not extreme level of cultural complexity (Murdock and Provost 1973), indicated by dominance of agriculture but without intensive techniques such as irrigation, plowing, or artificial fertilization and by the presence of loom weaving or metalworking but not both. Cultural features related to the economy and technology appear to be important determinants of the decision to assign children to take care of infants.

Societies in which older children are the principal companions and caretakers during early childhood include almost the full range of cultural complexity, but the traits inculcated in girls during early and especially late childhood (Barry et al. 1976) indicate weaker aggressiveness and stronger responsibility. Sexual attitudes and practices (Broude and Greene 1976) indicate a lesser degree of male sexual aggressiveness. These findings suggest stricter controls over behavior in societies in which older children are assigned the supervision of young children.

Data on agents of socialization during childhood (Barry et al. 1977) give evidence that the principal companions and caretakers of infants or younger children are generally siblings rather than less closely related or unrelated children. Data on sex of the agents (Barry et al. 1977) verify the earlier findings (Barry and Paxson 1971, shown in Weisner and Gallimore's tables 3 and 4) that the companions and caretakers are usually older sisters rather than brothers.

by COLIN BELL

School of Sociology, University of New South Wales, P.O. Box 1, Kensington, N.S.W. 2033, Australia. 8 XI 76

We must be grateful for this useful review of material scattered through the anthropological literature. Despite its obvious strengths, it does fail to develop three areas that will require fuller exploration.

1. I find it surprising that no reference is made to Ariès's *Centuries of Childhood* (1962). He demonstrates that the very notion of childhood is a creation of the modern world. Despite the ethnographic range of this paper, what "childhood" means is taken as unproblematic. It is likely that, at the very least, there are wide variations in the concept of childhood among the societies mentioned that the somewhat promiscuous and too easily made cross-cultural comparisons obscure.

2. "My brother's keeper," if a sibling at all, is likely to be a sister. It is surprising, therefore, not to see any discussion of incest, sexual initiation, and incest taboos. A de-Freudianised anthropology is an impoverished anthropology. The authors are forced to rely heavily on "frequency-of-interaction" data that prevent us from appreciating the quality of that interaction.

3. "My brother's keeper" is an apprentice rather than an assistant. Child caretaking is not "an opportunity to learn and practice adult-like functions," but rather an opportunity for immature females to learn mother-like functions. Though faced, this could have been developed further.

The authors are very suggestive on "attachment" and the problems associated with maternal deprivation in the West. This should provoke further thought, but, as Bronfenbrenner (1970) has demonstrated, the current conceptions of childhood in both the U.S.A. and the Soviet Union would make it difficult to involve children more systematically in child caretaking.

A final point: articles like this are as good as their data, rarely better. But if they were read before fieldwork began. . .

by SYLVIA CAUBY NOVAS

Departamento de Ciências Sociais da Universidade de São Paulo, Caixa Postal 8.105, São Paulo, Brazil. 25 xi 76

One of the main aims of this paper is to examine, in cross-cultural perspective, the role of child caretakers: who they are, for what reasons they assume this task, and what the consequences of child caretaking are for caretaker and/or charge. Obviously such an aim, being so general, can only lead to general, even almost commonsense, conclusions.

It is surely important to point to the fact that mothers are not the only ones in charge of child caretaking and that this fact certainly introduces variants that should be considered in any analysis of socialization, of the individual personality, or of the social system. To say, however, that "a domestic group with a large number of kin and cousins present, a mother with many offspring and a heavy workload, and a daily routine keeping the siblings and other adults available for caretaking would be the *optimal* situation for the development of non-parental and sibling caretaking" is not to say much.

Maybe I was disappointed with the fact that the authors' intent was not to analyse child caretaking in a specific community in depth in the light of their hypothesis, but to assemble the sparse data on child caretaking around the world. As an introductory step the paper is certainly needed and probably has been since the '50s. Let it not be the last.

by CAROLYN POPE EDWARDS

Department of Psychology, Vassar College, Poughkeepsie, N.Y. 12601, U.S.A. 30 xi 76

Weisner and Gallimore's timely and excellent review addresses problems of critical importance to current child development and psychological anthropology. Many in infant studies have recently realized that research in the field has been much too focused on the mother-child relationship to the neglect of other important relationships, such as those with fathers and siblings. Similarly, researchers who study preschool and school-aged children have noted that almost all American peer research focuses on the same-age relationships characteristic of Western institutional settings, while ignoring almost totally the types of cross-age relationships that prevail in family and neighborhood play groups. Promising results from tutoring programs using older children to teach younger ones (reviewed in Allen 1976) and recent studies (Barrett and Yarrow n.d., Hudson, Peyton, and Brion-Meisels 1976) that use mixed-aged settings to study the relationship between social role-taking abilities and prosocial behavior are examples of the beginning trend to go beyond the narrow focus on same-age interactions. Weisner and Gallimore's review, with its careful discussion of both antecedent and consequent variables that need to be explored, should be of great value in suggesting problems for American researchers and providing a cross-cultural framework for interpreting results.

Perhaps the most provocative question which Weisner and Gallimore raise concerns the way in which child caretaking fits into the larger cultural contexts of the traditional and peasant societies which practice it. The authors suggest that child caretaking may foster not only social, but also cognitive, characteristics appropriate for societies in which obedience, an interpersonal orientation, and solidarity with a larger kin group, rather than personal achievement and individuality, are values to be promoted in children. This idea suggests that the practice of child caretaking may be a critical condition for the transmission of a certain pattern of cognitive-social behaviors. If so, then the study of child caretaking becomes a problem of central, rather than peripheral, importance in socialization research as well as an area of study vitally in need of exploration by students of social change in the industrializing nations.

by B. B. GOSWAMI

Indian Institute of Advanced Study, Rashtrapati Nivas, Summer Hill, Simla 171005, India. 12 xi 76

Weisner and Gallimore have drawn our attention to an area of study which has not received close attention "for postulating correlates and testing comparative generalizations" from anthropologists. While I was reading their paper, the following two points came to my mind:

1. It would be quite interesting to know about child caretaking in cultures where the rates of divorce and illegitimacy are high. In the case of divorce, in patrilineal societies the child may be allowed to stay with the mother for a more or less extended period of time; sometimes this depends on the sex of the child. The norms on this matter vary from one culture to another. In the case of premarital and extramarital childbirth, caretaking may start with negligence. The extreme case will be the situation in which paternity is not proven. In such situations, siblings may not be living together. In matrilineal societies such as the Khasi and Pnar, however, illegitimacy is not even recognized, and there will be few alternatives to maternal and sibling caretaking.

2. A number of developing countries have been arguing for the adoption of family planning on a national scale to decrease the size of the family. It would be worthwhile if the authors could comment on the possible consequences of this for the hypothesis that "multiple caretaking lessens attachment to the mother." This might trigger further questions, not only on caretaking style, but also on women's emancipation, economic development, and other subjects.

by LEIGH MINTURN

Department of Psychology, University of Colorado, Boulder, Colo. 80309, U.S.A. 9 xi 76

This is a generally good review article on a neglected topic in the socialization literature. The article covers a wide diversity of literature, and the authors are to be commended for their literature search.

While I realize that there is not much theory available to organize this topic, I find the article diffuse. I think it should have had tighter organization around more specific problems, with summaries at the end of subsections. In addition, it could have offered a much stronger final summary. Specifically, I would like to have seen some assessment concerning which of the findings may be considered to be general and which are based on data so fragmentary that they may be culture-specific. Some implied generalizations are based on only one or two ethnographies with no evidence that the relationships observed can be found elsewhere.

The authors seem to be unaware of the principles of holocultural theory. While their data may not permit a test of such principles, they could at least have stated the direction that such investigations ought to follow.

by SARA B. NERLOVE and AMY KOEL

Department of Human Development and Family Studies, Cornell University, Ithaca, N.Y. 14853, U.S.A. 25 xi 76

Weisner and Gallimore have given us a provocative discussion of child caretaking, a startlingly neglected aspect of socialization. Their well-researched and lucid treatment is an important contribution to the study of human development. It is another example of the essential role of a cross-cultural perspective in raising consciousness about dimensions of behavior which are also currently important in Westernized, industrial nations and, further, may have policy implications for these nations.

In pointing out that psychological studies of siblings (e.g., Sutton-Smith and Rosenberg 1970) could benefit from con-

sidering the extent to which children are assigned caretaking tasks, Weisner and Gallimore suggest that later-born children may not be as likely to counteract by direct aggression the power of older siblings if the family and society legitimize the caretaking authority of older children. The interpersonal process which conceivably follows from such "legitimization of authority" may be hypothesized on the basis of the work of the Whitings (1975:100), who describe the behavior of caretakers as pro-social, responsible, and nurturant. Such behaviors may serve as "aggression suppressants" for their charges. The patterns of aggressive behavior of the caretakers may also be affected. Data on the Gusii of southwestern Kenya suggest that pro-social, responsible, and nurturant behavior required of child nurses may result in a pattern of "nurturant aggression," in which a legitimate expression of aggression by a veteran female caretaker is one on behalf of a younger child.

With regard to the relationship between child caretaking and sex differences, it has been noted that male children assume caretaking duties by virtue of demographic accident in a number of societies. There is no stigma attached to such duties, that is, they are considered appropriate for *children* of both sexes; but nonetheless, the care of infants and young children ultimately belongs to the realm of adult women. In a study of expressive play, theoretically based on a conflict-enculturation model, Roberts and Nerlove (1976) found that dissonance may be created for boys in two Guatemalan Ladino communities by concurrent performance of caretaking duties and participation in the type of work in the fields characteristic of adult men. The play of children receiving such "mixed messages of sex role identity" is characterized by a high degree of expressive modelling.

An evolutionary perspective on human behavior raises a critical issue not discussed by Weisner and Gallimore, that of the anomaly of peer relations in human infancy (Konner 1976). This consideration further supports the importance of the study of child caretaking, particularly within the broader context of the behavior of multi-age child groups. Konner points out (p. 394) that

infants are inept in relating to each other for the simple reason that they were never called upon to do so during millions of years of evolution. . . . They were selected . . . for an ability to become integrated into a multi-age child group. . . . They may, indeed, have been selected for a specific dependency of normal development process on the impact from such a multi-age child group.

Finally, because an important thrust of this paper is a call for new research, we want to report on a study in progress which is pioneering in its consideration of the relationship between child caretaking and cognitive development (Snipper 1976).

The study is based on Piaget's spiral model of development. The child's level of cognitive development pervades and influences his thoughts and actions. At the same time, his experiences and actions inevitably confront him with disequilibriums, stimulating further cognitive development. As Weisner and Gallimore point out, child caretakers are subject to simultaneous and sometimes conflicting pressures from parents and from infants, which they must somehow balance. Their resolutions and subsequent caretaking behaviors will be influenced by the quality of their thought. Conceivably, also, by experiencing the repeated social give-and-take required by caretaking, child caretakers will face more disequilibriums than noncaretakers, thus accelerating their development.

The data consist of systematic observations of rural Mexican girls aged 6-12 engaged in caretaking their infant siblings. The child caretakers, as well as a sample of girls with no opportunity to engage in caretaking, were administered Piagetian conservation tasks, a lateral-discrimination task, and two role-taking stories. Analysis of the data will involve

delineation of different caretaking styles and relation of each child's use of these styles to her level of cognitive development. The performances of caretakers and noncaretakers on the various tasks will be compared in order to assess the impact of caretaking on cognitive development.

by JAMES E. RITCHIE

University of Waikato, Hamilton, New Zealand. 3 XII 76

From my long association with Ron Gallimore, I am pleased by this chance to become my brother's keeper! With Tom Weisner, he presents a review that has been needed for some time but which, I am afraid, poses questions that will not be easily answered.

The first must surely be why it is that where literature, life, and memory remind us how significant were those hours, days, years, we spent with brothers, sisters, and friends, when we put on our academic hats we forget. Laing reminds us that families are political entities and that parents have power. That observation is well demonstrated not only by what we study but by the very way we study it. We lack data about the sibling-peer world. These authors collect what we know of child and sibling caretaking, and it is peculiarly little and precious in more than one sense of the term.

Our courses as well as our research projects still reflect the adult-parenting bias. We have begun to assimilate the emic-etic distinction into our ethnographic perspectives, but the emic world of childhood still escapes us. Phenomenologists have a real problem before them in this: can only a child report on childhood's inner world? What is it like to be a child caretaker or to be cared for by an older child? As I ask that, I remember my older brother, my grade-school protector, being a gang member, follower, then leader. Caretaking is firstly a universal in the world of childhood; its role transcends cultural difference. I know of no culture, however, in which it is acknowledged as primary over adult care, so we are dealing with two problems in cultural description.

In the first place, what difference does it make when people acknowledge child caretaking as a factor in child rearing? We could look at that in both within-culture and between-cultures research. In the second place, as these authors ask, are there consequences of a psychological kind when the role of child caretaking is great? These authors provide a tentative answer to this question, but it is heavily dependent on the work of the Whitings and on Polynesian reports. I am sure that we are dealing with a far wider phenomenon than this, one about which we will be able, within, say, a decade, to say much more. Before we all rush off to train child ethnographers to fill in this gap, however, we need to think of theoretical guidelines tighter than those offered here, for this is after all a properly empirical report, descriptive, thought-provoking, interesting, but not closely argued.

I would suggest that what we need is a social learning model that continues the social ecology approach of Barker and Wright with some conceptualisation of what the reinforcement style of child caretaking is like. Is there more here than just the pro-social, high nurturance, high responsibility, low need for achievement nexus that emerges from this review? Do we have need-for-affiliation scores yet for any or many other cultures? Do child caretakers reward and punish the same behaviours as do adults? If not, what are the differences? Phenomenologically speaking, is identification with a sibling or peer the same kind of experience as having love, respect, awe, or whatever for or of a significant adult?

We will also have some difficulty with measures. What will we measure? Is time spent with someone a useful indicator

(and of what)? Does counting frequencies of interaction lead to understanding significant symbolic relationships?

Perhaps the next step is again to return to what we know and have, whatever its inadequacies—the HRAF and the body of ethnographic literature—and try a controlled comparison of the effects of the four major socialization models, single-parenting, multiple parenting with high and low child-care-taking. I suspect that there are data enough at least to start.

The issues here are not only of theoretical interest. It seems not unlikely that distributed child care contributes greatly to many attractive and universally desirable character traits. We certainly know that the persistent trend towards small-scale child caring units is extending around the world and intensifying. If there are benefits in child caretaking, we need to be saying so; this evidence must do, but I wish it were a little firmer and better.

by PAUL C. ROSENBLATT

Family Social Science, University of Minnesota-Twin Cities, St. Paul, Minn. 55108, U.S.A. XI 76

Weisner and Gallimore have provided a valuable synthesis of literature dealing with the role of children in child care. The material is stimulating to students and raises many important, researchable questions.

There are, in addition to the many important issues considered in the article, some potentially significant consequences of the role of children in child care not discussed in it. My own cross-cultural investigation of birth-order differences (Rosenblatt and Skoogberg 1974) indicates that first-borns and last-borns often occupy unique social roles, both as children and as adults, and that the differences in social roles are linked to experiences as caretaker or charge. One might also expect different childhood care relationships to be associated with differences in adult competence at handling children, adult inclination to romanticize children, and adult confidence in dealing with children. My informal observations suggest that adults who had extensive experience, as children, caring for other children find the business of bringing up children relatively uninteresting, but I know of no formal study in the area. One wonders too what the influence is of different types of childhood care relations on adult affective bonds between the person who was caretaker and the person who was cared for.

When I read a paper like that of Weisner and Gallimore I wonder how many other topics could be illuminated through careful synthesis of the ethnographic literature. The field of anthropology has provided us with an enormous amount of case material. There is vast potential for synthetic work on our species. Even though the data are there for anyone to see, however, little synthetic work is published, and our understanding of our species remains much less than it could be.

by T. R. SINGH

Department of Sociology, B.S.M. College, Roorkee, U.P., India. 30 XI 76

Weisner and Gallimore's article provides a much needed review of the anthropological literature on sibling caretaking. It adds to our understanding of how sibling caretaking influences personality development (creating more similarity across siblings and less similarity between parents and children), promotes pro-social activities, and is related to achievement motivation.

The availability of caretakers—parents, siblings, and others—depends on a number of factors, some of which have been analysed by the authors in some detail. Sibling caretaking depends, however, mainly on size of household and cultural practices. In Andhra Pradesh villages, for instance, arrangement of delivery, at least the first one, is the responsibility of

the woman's parents and not her husband's. During delivery and for some time thereafter, the woman is with her parents; her sister or brother's daughter may be a caretaker for the infant. If there is no one to look after it at her husband's place, the sister or some other person will be made available. In short, caretakers may be siblings, co-siblings, or parallel or cross-cousins. In Uttar Pradesh villages, this is not the case. Delivery invariably takes place at the husband's, and the wife's sister may be available as a caretaker only when there is no one else to look after the infant. In most cases, caretakers will be siblings, co-siblings, or parallel cousins. At Ibrahimpur, a village 5 km from Roorkee and about 25 km from Khalapur, of 127 children under five years of age 112 had one or more siblings to look after them. Of these, more than half of the active caretakers were girls. This situation provides for different categories of caretakers. The Tharavad and polyandrous and bigamous households may have still other categories of child caretakers.

Do these different categories of child caretakers influence children in their charge in the same manner and to the same extent? If the caretakers' influence is assumed to be unstable and insignificant, it should make no difference whether the caretaker is a sibling, a co-sibling, or some other child. If it is assumed significant, then it should also help us understand how siblings placed differently in the "power hierarchy" cooperate with one another in different situations or develop an aggressive attitude towards the ones placed above them. The siblings grow into adults. Girls are married off, but their brothers continue to live with their parents even after they are married. Neither the power-hierarchy theory nor the aggressive-attitude theory helps us understand the order in which they set up their families after separating from their parents or siblings. This, however, does not mean that the authors' efforts are wasted. It only means that anthropologists and sociologists have not examined their data in the framework Weisner and Gallimore have presented.

by BRIAN SUTTON-SMITH

62 Beechwood Terrace, South Yonkers, N.Y. 10705, U.S.A. 1 XII 76

Weisner and Gallimore give clear support to the view that sibling child training studies have been scarce in social science. After a review of the cross-cultural evidence, they conclude that more use of child caretaking is to be recommended in today's world, at least for the mother's sake, to offer her more role contentment. While experience of responsibility for and nurturance of the young has much to recommend it as a subsidiary educational experience, the clear result arising from the data presented by these authors and other investigators of child rearing is that the dominance of the single caretaking mother is associated with cultural complexity, more diversified individual child personality, child achievement, and child creativity. The recent literature emphasizes over and over again that maximal personal and social development of infants is produced by the mother (or caretaker) who interacts with them in a variety of stimulating and playful ways. Unfortunately the intelligence to do this with ever more exciting contingencies is simply not present in child caretakers. It is difficult enough to impart these ideas of infant stimulation even to mothers. As the review demonstrates so well, children as major caretakers maintain social life at a much lower level and restrict individual differences. The differential effects of siblings on personality, as they struggle to gain access to the parents and other reward systems, may be after all, and despite these findings on caretaking research, the variables that are most important to study in the modern era. The student of today's family may well overlook the caretaking role of siblings because that is precisely *not* the important impact that siblings have upon each other for today's forms of differential development. Complex cultures require forms of child training that

heighten diversity, which siblings do by their rivalry rather than by their caretaking.

Part of the importance of this review is that it helps to focus attention on the inherent contradiction between better stimulation of the infant and the liberation of the mother. Both causes need to be served, but not at the sacrifice of either. Probably free choice for women to be "interactive mothers" or "liberated workers" is the direction in which we are moving. Gender may ultimately be removed from the choice so that anyone can be educated for the "interactive mother" role. Whatever the arrangement, however, there seems little future for the kind of low-level child caretaking described in this review. We should not equate a desirable educational opportunity for looking after younger children on selected occasions with those traditional kinds of child caretaking which deprive the modern child of his stimulus birthright.

by BEATRICE B. WHITING

Laboratory of Human Development, Harvard University, Cambridge, Mass. 02138, U.S.A. 30 XI 76

This is an excellent article, and I applaud the authors on calling the attention of social scientists to the role of child nurses in the socialization of children. I wish, however, that they had been more critical of the data they presented on the age of child nurses and their caretaking activities. The caretaking behaviors are ill-defined in the literature and in their discussion. Does the caretaker feed an infant, bathe him, put him to sleep, or just carry him and entertain him? Is the caretaker directly supervised by an adult? If s/he carries the baby, is s/he allowed to take the baby down or must s/he find an adult to do it, as is often the case with five-year-old tenders in Taira, Okinawa (Maretzki and Maretzki 1966)? What are the responsibilities of caretakers of various ages toward siblings of various ages? The ethnographers, not the authors of this article, are at fault for these omissions. Even in the Six Cultures study, which was particularly directed toward child-rearing patterns, such data are ambiguous. For example, it was unclear in the mothers' answers what behavior they considered essential for the care of an infant or a 2-year-old.

The authors quote data on ages which I find hard to believe. On the basis of my knowledge of child nurses in ten samples where I have detailed records of observed behavior, I have never encountered a four-year-old who feeds or bathes a two-year-old or an infant, or indeed carries a two-year-old or infant for any extended period. I find Williams's Dusun data confusing as to ages and difficult to believe. Weisner and Gallimore quote it without comment. We need careful documentation of the ages of nurses and their charges and samples of actual caretaking behavior systematically observed and scored. Care should be taken to record whether other older children are present with authority and whether adults are within earshot. In our Kenya data the oldest sibling present in the homestead is responsible even though s/he is not the assigned child nurse. A more recent analysis of these data on Kikuyu children collected by Kenyan university students under my supervision and analyzed by Wenger (1976) compares the behavior of three- to eight-year-olds toward two-year-old siblings and shows that there is a marked increase between four and eight in the proportion of nurturant caretaking behavior toward two-year-olds and a decrease in the amount of aggressive and social interaction (see also Sellers 1975). Eight-year-old tenders are more consistently nurturant. This may well be why eight years appears to be the mean age for child nurses in the cross-cultural samples where ages seem to be accurately recorded. I have speculated that this is the age of greatest identification with the mother, before the onset of puberty when the child begins to think of his/her own future and, in the simpler societies, moves

on to more adult tasks such as gardening and animal tending or into school. The shift in behavior between four and eight is in line with cognitive growth during this period, the so-called five-to-seven shift observed by White (1970), and corresponds to the age when many societies believe children develop reason (Rogoff et al. 1975:353).

This is an important article because it calls attention both to the importance of child nurses and to the need for better reported data on their responsibilities and behavior.

by W. D. WILDER

Department of Anthropology, University of Durham, South End House, South Rd., Durham, England. 20 XI 76

«Small children are everywhere dirty, demanding, demeaning, and generally dehumanizing. One solution is to spread this large burden put upon us by hateful children and get other children to do the job.» This is not the authors' declaration in so many words. Their discussion stops short of it. Weisner and Gallimore say, "Our use of the term caretaking is *global*," and they focus on "*nonformal, noninstitutionalized* child tending" (italics mine). In other words, they refuse to restrict the subject matter; "caretaking" in their definition can only mean *any* form of interaction in which small children are included. As a result they are forced, it seems to me, to retreat from any interesting propositions about child minding (such as I attempted to articulate in the gloss above) and to resort to a *model of interaction frequency pure and simple*. The frequency model allows the authors to ignore all "precise identifications" of child interaction and concern themselves solely with causal factors outside the interaction itself. How else to explain their constant reference to numbers and numerical scales, ratios and rates, percentages, amounts and proportions of time, frequencies and incidence, proxy estimates, significant correlations, indicators and indirect measures? With interaction as faceless as this, it is not too surprising that the model is so anthropologically unsophisticated and insensitive, that it *blanks out* the anthropological data (e.g., language learning).

The main difficulty seems to be that the covert model of interaction frequency employed by Weisner and Gallimore stems from psychology, not anthropology. Their retreat into conventional psychology (nurturance and responsibility, attachment, field-dependence, cognitive styles, etc.) has some predictable consequences. One is struck once again by the discovery, made repeatedly in examining other "cross-cultural" studies by psychologists (see Wilder 1972, 1975), that the phrase "the alien culture" in these studies tends to refer to *any* people of non-European extraction. Psychological tools are faulty here because they fail to stress any specific knowledge of the alien culture; they require only its assured presence. In short, the *less* the psychologist knows of the culture the better for him. The pitfalls of this approach are, I think, clear, and Weisner and Gallimore's paper shows them as well as any.

The model is insensitive to the data, and I have suggested reasons for this. I can cite in further support of my point the well-known paper by Neisser (1962)—a superb example of how to postulate correlates and test comparative generalizations about childhood growth cross-culturally. This kind of model is exactly what Weisner and Gallimore ask for. It takes account of the "fit" between psychological reactions and social interaction, which Weisner and Gallimore's model does not because it fails to specify any type of interaction other than "co-presence" of children. Neisser's paper is inspired in part by some of Margaret Mead's suggestions, and since for no apparent reason her suggestions (because so full of data and ready for testing?) cause a mild paroxysm midway in Weisner and Gallimore's argument, it is perhaps too much to hope that they

will be much interested in them. You can lead a horse to water, but more than that can be very difficult!

As an attempt to restate the mutual relations of psychology and anthropology, Weisner and Gallimore's paper is somewhat inappropriate because so one-sided.

by THOMAS RHYS WILLIAMS

Department of Anthropology, Ohio State University, Columbus, Ohio 43210, U.S.A. 30 XI 76

This work provides evidence of the ways anthropological research on the socialization process is becoming conceptually and methodologically more precise while retaining its transcultural, transtemporal, and holistic orientations. The discussion is a good example of the increasingly rigorous studies of socialization that have appeared since the early 1960s as a consequence of the graduate teaching, research, and theoretical models provided by, among others, Margaret Mead, Beatrice and John Whiting, Louise and George Spindler, and Fred Gearing (Mead 1963; Schwartz 1976; B. Whiting 1963; J. Whiting et al. 1966; Whiting and Whiting 1970, 1975; Spindler 1974; Gearing and Sangree 1977). These innovative efforts, which have produced some very original theoretical insights (J. Whiting 1964, 1965; Whiting and Ayers 1968; Landauer and Whiting 1964), have taken socialization research out of its extended prose descriptive phase, which lasted more than three decades (Mead 1928, Landy 1959), into the new mode of scholarship typified by the work of Weisner and Gallimore.

My concern is that, despite a very clear opening disclaimer and at least a half dozen "we-need-more-field-data"-type statements by the authors, readers unfamiliar with socialization research could derive an impression that sufficient ethnographic data now exist to proceed with a final abstraction of key variables in child and sibling caretaking, especially those variables essential to understanding specific antecedent-consequent relationships. While contemporary socialization research has proceeded a long way from Kidd's (1906) analysis of a "savage childhood," I believe the ethnographic data base for the type of comparative analysis offered by the authors remains much too limited at present for us to forgo the difficult task of intensive field study of the details of the cultural transmission process. Thus, while the authors have not in any way denied the utility of such ethnographic research, and in fact have specifically called for added field data, it is vital to point out that there is a pressing need for socialization research samples considerably larger than 76, or even 186, cultures. This is particularly so in any research involving the testing of hypotheses concerning the consequences for individual adult behavior and personality of infant and child care, whether parental, nonparental, or some complex combination of the two. The development of an effective conceptual scheme for research on socialization—a scheme to explain its origins, development through time, and present structure and functioning (cf. Williams 1972*a, b*, 1975)—must be derived from careful and very sophisticated ethnographic studies similar to those published by the Whittings (1975; see also Erchak 1975; Seymour 1975, 1976).

I have a second, and more specific, concern with this work. It seems to me that the authors have unnecessarily drawn the focus of the discussion much too sharply, since they seem to have excluded fosterage, child-lending, and child-giving (Goody 1966, 1971, 1975; Carroll 1970; Keesing 1970; Sanford 1975; Stack 1975). This indicates to me that they have not asked the essential questions of how cultural transmission occurs in *all* nonparental styles and what the consequences of such care are for individual learning, behavior, and personality. I would hope that, in further studies, Weisner and Gallimore would include ethnographic data and intensive analyses of these other kinds of nonparental care.

Reply

by THOMAS S. WEISNER and RONALD GALLIMORE

Department of Psychiatry, University of California, Los Angeles, Center for the Health Sciences, 760 Westwood Plaza, Los Angeles, Calif. 90024, U.S.A. 21 I 77

One of the best consequences of CA☆ treatment is the generation of ideas and research. We were thus especially interested in comments by Barry, Nerlove and Koel, Rosenblatt, Singh, Whiting, and Ritchie, who all report on new data or present new or additional hypotheses concerning child caretaking.

Barry presents data supporting the hypothesis that in societies in which older children care for younger children there are stricter controls over behavior and stronger responsibility training. Barry also notes that siblings, rather than other children in a compound or village locale, care for their own younger brothers and sisters. If this is generally true, differences between families in adult or child caretaking practices and personality characteristics are likely to be accentuated.

Barry's intriguing finding that societies where children care for infants are typically not societies where children also care for younger children raises a host of issues. Many of the suggested consequences of sibling caretaking will be modified in societies where children are responsible only for infants or only for older children. Whiting's comments on specifying the caretaking practices performed at various ages (as in infant care versus care of a 5-year-old) are especially relevant in light of these data.

Nerlove and Koel discuss the importance of an evolutionary perspective on socialization generally and child caretaking in particular. Konner (1976) has written an excellent review of this problem, which in our opinion confirms and adds to many of our observations on the antecedents and the form of non-maternal care in Western societies. Konner also contrasts the rarity of same-age groups of juveniles in human evolution and in most societies today with the near-exclusive attention given peer groups in Western social-psychological research. Konner's work emphasizes the presence of mixed-age rather than peer play groups in most nonhuman primate species.

Nerlove and Koel report effects on boys in Guatemala who perform child caretaking duties as well as male adult agricultural work. It is interesting that such boys show a high degree of expressive modeling compared to boys who do not perform caretaking duties. It would be fascinating to see how the children reared by these boys differ in their own sex role performance, personality, or cognitive style from children reared by girls. The study they report, which systematically varied the experience with caretaking by children, is an excellent example of the kind of work that needs to be done in this field and the kind of study which in the past would have been done solely with mothers.

The problem of specifying ages and childhood stages appropriate for caretaking functions of different kinds is important, as Whiting points out. Of course the practical difficulty is that many ethnographies do not specify ages and it is not always clear whether there is an age-specific time for the onset of all behaviors recorded in ethnographies. Whiting's theoretical rationale for the 8-year-old period's being critical for child caretaking is extremely interesting. Not only does it correspond to several of the cognitive-style differences and personality correlates we identified in our review, but the identification and modeling occurring during this period open up issues related to child development which can be tested in a field study by selecting age-appropriate children who are and are not caretakers.

Bell comments that the conception of childhood as a distinctive and separate stage of life is itself a cultural-historical variable. Far from seeing this issue as unproblematic, we suggested in our paper that sibling caretaking is an important influence

to consider in any attempt to understand what a society's conception of childhood is, as well as how that conception might have originated. Thus the assignment of early responsibility for child care, as well as responsibility for other chores and tasks, surely influences whether a society views "childhood" as a special period of life distinct from adulthood or whether it sees a much more integrated and gradual shift from one developmental stage to another. Although the concept of childhood is influenced by the kind of antecedents we identify in our paper (domestic group size and composition, subsistence mode, workloads), values and conceptions of childhood are likely to exert an independent influence on how child caretakers and their charges are treated. We see our paper as directly contributing to the issues made popular by Ariès's work.

Bell also remarks that children function as apprentices rather than assistants. We suggest that the available data indicate that both apprentice and assistant roles occur; which is more frequent and what explains their cross-cultural incidence are not known.

Goswami raises a relevant point about divorce and illegitimacy, rates of which are increasing in the United States. It appears that the events following divorce are most important in determining the effects of the family separation on child caretaking. Women who return to their natal home, return to work and subsistence activities, and have younger children may use other adult caretakers or day care. Mothers with older children available who do not return to their natal home and do not work are less likely to use either other adult or child caretakers. Where father participation in direct child care is low (as is the case in most societies around the world), father absence may not be as important as the absence of other available kin and neighbors, including a child's older siblings, to assist the mother. Goswami is also right that a decrease in family size related to family planning programs will likely reduce shared family functioning and child caretaking patterns in those societies, if other things remain equal. However, a national family planning effort successful enough to produce such an effect would no doubt produce many other correlated changes in family life, subsistence economy, and residence.

We fully agree with Williams, Bacon, and Minturn when they point out that many of our statements are based on very few studies; it would be a false impression that the literature is replete with examples and hypotheses relevant to child and sibling caretaking. Singh suggests that many of our sibling care and family functioning hypotheses can also be seen as implicating the larger sibling group. Williams may also be correct in indicating that some of the points we have made about child and sibling caretaking may in turn be subsumed under the more general study of all nonparental care, including care by other adults. Fosterage, child-lending, and child-giving, mentioned by Williams, were not discussed in our review because they are not directly related to child or sibling caretaking. An adopted child in Polynesia growing up in the household of his aunt or grandmother is perhaps cared for by his cousins rather than by his natural siblings, but we are not aware of specific studies contrasting children in such contexts to unadopted children being reared by siblings. As Singh notes, a great deal of research has been done on peers, but multiple-age groups (siblings included) have received far less theoretical or descriptive attention. Further, in the U.S.A. much of the work available utilizes systematic, quantitative approaches; we believe what is needed is high-quality, fine-grained ethnographic study of the sibling group among other multiple-age groupings. While the sibling group, fosterage, and nonparental caretaking in general are beyond the scope of our literature review, our colleagues are quite right to emphasize these questions.

Ritchie's notion of a child as the ethnographer of his own caretaking experiences is indeed an interesting methodological approach. The emic world of childhood does need intensive study. Although we do not have new data from the inner world

of the child, we can report some preliminary findings. As part of a study in progress using families from the Kamehameha Early Education Project research school, Weisner, Gallimore, and Tharp are observing children (four boys, four girls, ages 5 to 8) after school hours in their homes or neighborhoods. Following the observations, each child is asked, "Is anyone taking care of you?" The observer also makes a judgment of the caretaking arrangements on the basis of a specific set of instructions. Table 9 compares the judgments of children and observers; the amount of disagreement is striking. Girls seem to underreport times when they are not being cared for, while boys overreport. Or are our criteria for inferring caretaking structure wrong, so that it is the observers who are (differentially) over- and under-reporting? We can speculate that Hawaiian-American girls are more sensitive to a sibling caretaking system and tell our fieldworkers about it more than boys, who are less involved and prefer to present themselves as autonomous and independent. Interestingly, 29% of the girls' reports specifically state that siblings are caretaking, compared to 7% of the boys'. (These data include only the observations in which children reported that someone was taking care of them.) These are very early and preliminary data; our point in presenting them is to support Ritchie's suggestion that child caretaking research must consider multiple folk perspectives. More on this issue is forthcoming from another study in progress which focuses on the issue of child perspectives on caretaking (Jill Korbin's UCLA dissertation, sponsored by the UCLA Hawaii Project).

Barry, Bell, and Wilder all comment on the kind of data used in our review. Barry comments on the fact that we used cross-cultural, intracultural, and individual-level data; this, indeed, was one of our explicit intentions. In a field in socialization research such as child caretaking this is particularly important. Bell apparently feels that, since sibling caretakers are likely to be girls, a discussion of sexual initiation and incest taboos and psychodynamics would be essential. Although most child caretakers are siblings and the majority (but certainly not the overwhelming majority) are girls, the connection of sexual initiation data seems somewhat peripheral. We certainly agree that Freudian theory is important in anthropology, but we do not view its use only in the context of female child caretakers or incest and sex initiation. Internalization of standards, role models supplied by adults during preadolescence, and the experience of children cared for by older boys or girls seem much more relevant.

Bell and Wilder feel that use of data on interaction frequencies, proportion scores, percentages, and so forth, is antithetical to understanding the quality of interaction. We believe precisely the opposite. Cross-cultural estimates of correlates, antecedents, or consequences of sibling caretaking require careful examination and measurement at cultural, community, and individual levels. In any event, the first portion of our paper

TABLE 9

PERCENTAGE OF OBSERVER'S JUDGMENTS AND CHILDREN'S RESPONSES TO QUESTION "IS SOMEONE TAKING CARE OF YOU?" FOR BOYS AND GIRLS

	OBSERVERS		CHILDREN		
	No	Yes	No	Yes	Not Asked ^a
Girls...	26.6	72.2	11.4	44.3	40.5
Boys...	34.2	64.5	56.6	14.5	26.3

NOTE: Based on 20 field observations on each of eight children, two each from grades kindergarten through third, one girl and one boy from each grade.

^a Children were not asked the question when they and the observer were in the presence of the mother.

provides qualitative, ethnographic examples of a variety of styles and contexts within which child and sibling caretaking occur.

So, we plead guilty to the charge of using numbers and statistics, as well as to an interest in conventional psychology, systematic observational and experimental methods, qualitative methods, and so on. Many studies reviewed rely on frequency-of-interaction as opposed to quality-of-relationship data. We believe this accurately reflects the state of current literature. Several commentators have done us all a service by underscoring this point and correctly pointing to the need for additional varieties of analysis. No doubt methodological difficulties have deterred many investigators from studying quality of relationship. What is needed are some high-quality, intensive field studies of this and other aspects of sibling caretaking to complement frequency-of-interaction and quantitative studies and to stimulate hypothesis formation.

Edwards and Sutton-Smith both raise the question of the applied or social-policy implications of sibling caretaking. Edwards points out the importance of tutoring programs using older children to teach younger ones, a topic explored by Gallimore and others.

Sutton-Smith raises a more basic issue concerning inferences about child training that might be drawn from our review. Sutton-Smith suggests first of all that "children as major caretakers maintain social life at a much lower level and restrict individual differences." He also comments that "there seems little future for the kind of low-level child caretaking described in this review." Leaving aside the question of how to interpret these comments for infancy, as opposed to child care of older children in the context of a multi-age child play group, we believe that our article emphasizes the importance of viewing child caretaking within its social context, not solely in terms of "stimulation levels." Although Sutton-Smith focuses on possible cognitive-style, classroom-performance, and personality effects, he neglects social-responsibility, sex-role-difference, and multi-age-play-group effects which it seems to us are equally important. We believe that there is a trade-off of effects, whether these are judged to be advantageous or disadvantageous in a given cultural setting, and that these consequences need to be considered as a whole, in context. The question of whether child caretaking is a "lower level" of care is a difficult absolute judgment to make. However, to the extent that horticultural and pastoral subsistence modes and village-based economies and residential patterns are likely to continue as the characteristic setting for most of the world's people, we doubt that sibling caretaking has "little future."

We intended in our closing paragraph to alert interested colleagues to the relevance of the child caretaking material to current debates about child care policy, female role opportunities, and the like. As in socialization research, there has been a tendency to ignore child caretakers and their contributions in public policy debates. For recognizing these policy issues, as well as the more theoretical aspects of the quality-of-relationship issue, Sutton-Smith's comments deserve a finer-grained analysis and our special appreciation; we will use his remarks as a license for some speculation.

Sutton-Smith raises an important point. In U.S. society, high infant and child stimulation and verbal interaction with adults appears to be important for many kinds of educational and career functions. Sutton-Smith is absolutely right in the emphasis he gives to balancing the advantages of role flexibility which child caretaking might provide for mothers against the removal of an interactive and caring mother or father role from a child's experience. We agree with him that this would be undesirable given the available evidence from our own society, and it would be incorrect to impute any such generalization or social policy recommendation from our article.

At a more general level, Sutton-Smith's comments raise questions of values, some of which are also noted by Ritchie.

Is the quality of life engendered in societies that use sibling caretakers unpleasant? Conversely, is life more satisfying in societies which foster individual achievement, sibling rivalry, and individualism in the form of personality and creativity? Implicit in Sutton-Smith's suggestion that children are better off if raised by adults is a value assumption. While Sutton-Smith notes that a great deal of literature indicates "that the dominance of the single caretaker mother is associated with cultural complexity, child achievement, and child creativity," there may be a negative side as well. Perhaps the contemporary alienation and widespread social discontent which is often ascribed to industrial societies is partly a result of the emphasis on individualism and personal achievement and the deemphasis of mixed-age, small-group social integration. If socialization systems are reflections of the lives which they prepare children to live, perhaps emphasis on individual development, peer competition, and stimulation of children leads to alienation and anomie in complex and mobile societies. A child who will not face the social complexities and benefits of kinship as an adult need not be prepared by participation in the sibling group. Something gained, something lost.

One of Sutton-Smith's misgivings about child caretakers is the limited number of ideas they can learn about "infant stimulation" and the "low-level caretaking" they provide. The prospect of "improving" sibling skills is not bright, given the difficulties of parent training in general. Although siblings may indeed be less skillful than adults, in many situations the effects that Sutton-Smith warns us about may not occur because infant care and young-child tending is a function *shared* with adults. Further, it is possible that assumption by siblings of some of the more routine work of child rearing may give opportunities for the parents to be stimulating.

More problematic is the question of sibling skill. At the very least, we need to know more about the relationship of caretaking skills and age; perhaps pre- and early adolescents are nearly as capable as young mothers, given that the age difference for these two groups is not great in most societies.

Sutton-Smith identifies an "inherent contradiction between better stimulation of the infant and the liberation of the mother." Certainly a possible outcome of expanding role opportunities for women is a sharp reduction in the size of families and the sibling group; in that event sibling caretaking cannot be implicated in Sutton-Smith's contradiction. It is more interesting, however, to explore the contradiction as he conceives it. What would happen if siblings were employed (exploited?) in a national effort to free women from child care but not childbearing? There are many possibilities. For example, some Hawaiian-American families with whom we worked make a strong case for building family solidarity and teaching responsibility to their offspring by assigning them important, functional child care roles; they cite "homes" for the aged as a regrettable consequence of not stressing child care responsibilities for the young. At the same time, we have observed resentment in Hawaiian adolescents of the burdens of child care which they have been forced to assume. As Rosenblatt observes, it is possible that persons with experience as sibling caretakers are less intrigued with the idea of parenting; perhaps caretaking is an important screening as well as training experience for young people.

In general, the differences between parent and sibling caretaking that Sutton-Smith is concerned about have yet to be established. He presumes that parent-child interactions produce more substantial, long-lasting cognitive/intellectual gains, but care by reasonably competent child caretakers might have the same effect. To get more substantial effects might require a parental training program of such intensity and quality that no one would tolerate or pay for it. To be sure, parents can probably perform more complex and exacting socialization behavior, but it may make only a small difference on the dimensions about which Sutton-Smith is concerned. It may make a

theoretical, rather than a practical, difference if a significant proportion of caretaking is done by siblings, with adults providing some additional stimulating "quality" caretaking. We are by no means arguing this point as confirmed or as a policy recommendation; it is merely a plausible hypothesis, one worthy of study before sibling caretaking is discarded as an archaic, low-level form of socialization not suited to modern, industrial societies.

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