Styles of Infant Feeding: Parental/Caretaker Control of Food Consumption in Young Children

KATHERINE A. DETTWYLER
Department of Anthropology
Texas A & M University

Studies of infant-feeding practices abound in the recent anthropological literature, spurred by an interest in maternal and child health and by the infant formula controversy. The focus has been on the determinants of infant-feeding patterns and the nutritional effects of these patterns. These studies have looked at such variables as breastfeeding and weaning practices, the age when solid foods are introduced, which foods are appropriate for children, the age at weaning, the use of infant formula, overall dietary adequacy, and socioeconomic and demographic determinants.

The studies employ a variety of research techniques, types of data, and underlying theoretical models, which lead to different policy implications concerning how to improve the nutritional status of young children. Some studies identify food availability and/or poverty as the primary determinants of infant-feeding patterns and therefore nutritional status (cf. Raphael and Davis 1985). Others highlight normative beliefs that limit children’s access to protein sources, leading to malnutrition (Lepowsky 1985, 1987; Pettigrew 1982) or intrafamilial patterns of food distribution that lead to higher rates of morbidity and mortality for women and children generally and for female children in particular (Daniggelis 1987; McKee 1984; Pettigrew 1982; Piotrow and Viteri 1985). Several recent studies focusing on child neglect and abuse have described feeding practices in contexts where caretakers purposefully withhold food to hasten a child’s death (Mull and Mull 1987) or feed children selectively depending upon their perceived ability to survive (Howard 1987; Scheper-Hughes 1987) or their own demands for food (Dettwyler 1986; de Vries 1987).

Detailed ethnographic descriptions of exactly how solid foods are consumed by young children are, however, generally lacking in much of the recent literature, including five major publications on infant feeding (Bond et al. 1981; Hull and Simpson 1985; Marshall 1985; Popkin et al. 1986; Raphael and Davis 1985). By “detailed descriptions” I mean such information as:

1. What the child eats: whether there are special foods or special means of preparing foods only for children, the kinds of foods considered appropriate at particular ages, and how they are prepared.
2. When the child eats: how many times per day, at what intervals, snacks, whether on demand, etc.
3. How the child eats: with the use of hands or utensils, with or without help from others, where the child eats.
4. The social context of the meal: who is present, the interactions between the child and others.
5. Who controls what and how much the child eats, how this control is achieved, and the basis for these decisions.

I suggest in this report that the final set of variables, the degree and type of parental/caretaker control of food consumption, may be as important as food availability, household socioeconomic status, or maternal workload in determining nutritional status in infants and young children.2

I suggest further that the lack of rich ethnographic descriptions of infant feeding reflects a particular theoretical orientation in which it is assumed that (1) family income is directly translated into food that is equitably shared by all family
members; (2) young children will automatically receive adequate, appropriate nutrition, in a relatively sanitary environment, as long as food is available; (3) children everywhere have good appetites; (4) parents everywhere recognize the relationship between food intake and health; and (5) all parents place children first in the hierarchy of access to resources.

Researchers are not justified in making these assumptions a priori, but rather need to examine the larger context of infant feeding to see if they are warranted in any particular case. For example, a number of studies have shown that increased income does not automatically lead to a more ample or nutritionally superior diet (cf. Daniggelis 1987; Dettwyler 1985, 1986; Guldan 1988; Pickering 1985), and that anorexia among young children can reduce dietary intake (Dettwyler 1989; Hambidge et al. 1972).

In this brief report, I will survey the extant literature on the degree and type of parental/caretaker control over food consumption in children. Cultures range from those that sanction maximum control by caretakers to those that allow almost complete autonomy for infants. The degree of control exerted varies intraculturally as well, according to characteristics of the caretaker (e.g., age, sex, ethnicity, level of education, socioeconomic status) and/or characteristics of the child (e.g., age, sex, health, temperament). Considerations of why cultures and/or individuals exert different degrees of control are beyond the scope of this report, but there are some indications that child-rearing practices generally, including perceptions of children's needs (Dettwyler 1986; Piwoz and Viteri 1985), and levels of maternal education specifically (M. Zeitlin, personal communication, 1988; Guldan 1988; Zeitlin and Guldan 1988) are important.

An examination of available ethnographic evidence reveals a wide range of attitudes toward parental/caretaker control of food consumption in infants and young children, as well as a variety of techniques used to establish and maintain such control. Reported techniques range from the strongly negative to the strongly positive, including force-feeding, actual physical punishment, threats of physical punishment, physical restraint during the meal, guilt-invoking phrases, distraction, encouragement or coaxing, cajolery, praising the food, parent/caretaker pretending to eat, feeding games, special foods for children, praise for eating, and bribery with various rewards, including other foods.

To begin, I present data from cultures in which parents/caretakers exert maximum control over food consumption in young children.

Ethnographic Evidence

Research in Ibadan, Nigeria (Yoruba), represents the maximum amount of control described in the literature. Ibadan mothers are reported to routinely force-feed their infants beginning at only a few weeks of age (DiDomenico and Asuni 1979; Lloyd 1970; Orwell and Murray 1974). The mother holds the baby's nose and pours liquid into his mouth (Lloyd 1970:81; Meldrum 1984: 176). DiDomenico and Asuni report that "some mothers who had been told not to force-feed did so when frustrated by the baby's refusal to take the bottle" (1979:55). In Meldrum's study, 78% of the mothers were force-feeding their infants, and 60% of the mothers stated that force-feeding was necessary "if the child refused food" (1984:176). DiDomenico and Asuni report that "some mothers who had been told not to force-feed did so when frustrated by the baby's refusal to take the bottle" (1979:55). In Meldrum's study, 78% of the mothers were force-feeding their infants, and 60% of the mothers stated that force-feeding was necessary "if the child refused food" (1984:176). Unfortunately, no data have been published on age or sex differences in force-feeding, the children's reactions to it, or its effects on their health. One wonders, for example, if force-fed infants grow up to be obese adults.

Cultures that are only slightly less controlling than those reported from Nigeria include the United States, England, Newfoundland, and Sweden. Although force-feeding has not been reported in these cultures, a variety of other techniques have been. A survey of the U.S. literature on pediatric nutrition reveals only a few guidelines for parents. Topics in Paediatric Nutrition (Dodge 1983) includes a single piece of advice: "some degree of contrariness is virtually universal in this age group of two to four year olds" (Pinkerton
Pinkerton assures mothers that refusal to eat, or to eat very much, is nothing to worry about, and requires no intervention. The American Academy of Pediatrics (1979) likewise does not address the issue of how much children should eat, except in the context of recommended dietary allowances for various nutrients. It does not discuss how one gets young children to eat the recommended amounts, nor does it address such issues as how often and with whom children should eat.

Cederquist (1981) offers a few statements regarding control over food consumption. The author says that slower growth from 12 to 24 months is accompanied by a decrease in appetite that is normally reflected in a decrease in enthusiasm for food. Mothers should be made aware of the expected difference in food acceptability and be prepared to face it calmly. No normal child is going to starve if he misses a meal now and then. . . . Why should the child not enjoy the privilege of disliking one, or even several, foods just as adults do?

Several assumptions are reflected here, including that the mother will naturally want to insist that the baby finish the food she has prepared and that she must be taught to overcome this urge, and that mothers do not normally respect their children’s likes and dislikes for food, but ought to.

The evidence from the discipline of folklore is more detailed than that from either nutrition or pediatrics. Reported techniques for controlling what and how much children eat, especially convincing them to eat more food, or disliked foods, range from positive comments about the food’s appearance, taste, or nutritional value, to threats of exaggerated violence. Mothers or other caretakers may pretend to eat themselves, reward the child with smiles or praise for eating, or play age-appropriate food games.

Widdowson, a folklorist who has studied the use of traditional phrases regarding food consumption in children in England and Newfoundland, writes:

In Yorkshire families, for instance, when feeding her child with a spoon, a mother may say that a certain spoonful is “going to Auntie Mary’s in Bradford” or to “Nannie’s in Leeds” and so on. While she is giving this little account of the fictitious journeys of each spoonful she deftly puts the spoon into the child’s mouth and then continues with the story of the supposed travels, punctuating it at intervals by giving him another spoonful. . . . A more recent variant of this game which illustrates how folklore adapts to new developments, is one in which the mother treats the spoon as if it was an aeroplane . . . [1981:380–381]

Rewards are also often used in the context of control of food consumption. Bringeus, a Swedish anthropologist, discusses the history of the “Thrive Bit” or “Force Piece”: the idea that all the power and strength of a meal, or piece of food, flees into the last piece left (1981). Therefore, if the child does not eat the last bite on his plate, he will not derive any nutrition from the meal. Bringeus says,

The background of the idea of the thrive-bit is partly the fact that it seems to be very hard for small children to finish their meals and not leave anything on their plates, partly that it is a standard social norm that one should eat all the food one has been served. One way to solve this problem of conflict of interests is to change the norm and let children eat as much as they want and leave the rest. For the oldest living generation, to which my own mother belongs, this was unthinkable. [Bringeus 1981:31, emphasis mine]

Here, gratification is delayed, and the reward is that one grows up to be big and strong.

A common reward is that the child gets to eat dessert only after finishing all of the food/vegetables/meat. This is one of the tactics suggested by Wason (1969) and reported by Widdowson (1981) for England and Bringeus (1981) for Sweden; it is also familiar to most North Americans.

Statements meant to invoke guilt for not eating, which are only effective with older toddlers, are also reported from England, Newfoundland, Sweden, and the United States. Through a variety of statements, the child is made to feel guilty for not eating and for not showing proper appreciation both of his mother’s culinary talents and for the time and effort she put
into fixing the meal (Bringeus 1981; Widdowson 1981; L. Zimmerman, personal communication, 1988).

Another common guilt-invoking technique is that of drawing the child’s attention to starving children elsewhere in the world: “Eat your dinner, remember there are children starving in ______ [some Third World country].” Both Widdowson (1981) and Bringeus (1981) report the common use of this formula in England and Sweden, respectively, and most North Americans are also familiar with this phrase.

The connection between cleaning one’s plate and starving children is not direct, otherwise we could simply package up the leftovers and ship them off. Rather, it is a reminder that not everyone is as fortunate as we are, and that food has moral value and should not be wasted. This usage presupposes that some adult has served the child his or her portions, that the child has not been allowed to choose what and how much to eat.

Subtle or overt threats are often used in connection with the control of food consumption in young children in the United States, England, and Newfoundland. Threats of withholding of dessert, TV, or some other reward have been reported anecdotally. From Widdowson’s folklore data collected in Newfoundland come tales of supernatural figures invoked to back up threats. One of the more elaborate mythologies involves the “Crust Man,” a supernatural figure who comes and steals away children who don’t eat the crusts of their bread (Widdowson 1981). Yen remembers from growing up in China that she and her brothers were “Cautioned to eat all of our rice lest we marry pockmarked persons” (Yen 1955:11–12).

Finally, the widespread use in Europe and North America of passive restraint devices such as high chairs and booster seats with seat belts gives the caretaker control over how long the child must sit, confronted by food.

Continuing along a comparative framework, I offer examples from cultures that are more lenient in their approach to food consumption in young children. Describing a community in the Philippines (based on data collected by anthropologist Lee Stapleton), Raphael and Davis write: “When the child was about a year old, she began to eat what the rest of the family ate: rice, moistened with water from the vegetable pot, and camote. She was offered leafy vegetables and squash, but since she didn’t like them, she wasn’t forced to eat them” (1985:45, emphasis mine). That is all that is said about the style of feeding solid foods to infants in the Philippines.

Describing a family in northern India (based on data collected by anthropologist Rajalakshmi Misra), Raphael and Davis provide a more detailed description of the actual feeding of solid foods. The mother takes a portion of cereal porridge for the baby, has the baby sit in her lap, and uses the fingers of her right hand to put small amounts of food directly in the baby’s mouth. When the baby becomes restless and doesn’t want to sit still anymore, the mother stands up and walks around. The mother explained to Misra that walking the baby during a feeding is a common practice in India. “Parents like to make the baby sit and feed but after a certain stage the baby refuses to sit in one place like a gentleman. The mother’s intention is somehow to stuff into him whatever portion of food she has taken for him, so she walks around to distract his attention” (Raphael and Davis 1985:60, emphasis mine). Here we find evidence for parental control via distraction of the baby, but not to the extent of force-feeding or threatening her. Unfortunately, we are not told how mothers decide how much food to take for the child’s portion initially.

About Sardinia (based on data collected by anthropologist Elizabeth Mathias) Raphael and Davis write: “Some babies do not care much for foods other than milk, and some mothers, especially with their first child, are less experienced in coaxing them to eat” (1985:89). Apparently, “coaxing,” whatever it implies, is the typical method that Sardinian women use to get their children to consume more food.
On a more general level, Daniggelis reports from studies in Samoa that the youngest children eat last, after the adults and older children, and that sibling rivalry at mealtimes can be intense (Daniggelis 1987). While many Samoan children are malnourished, those cared for by their grandmothers are more likely to be overweight. Daniggelis suggests that they have access to the grandmother’s food resources and that caretakers give extra food to children who have been ill (1987:148).

Zeitlin and Guldan, in a detailed analysis of infant feeding in Bangladesh, report that “the termination of feedings by the caretaker (rather than by the child) is associated with more severe malnutrition. From this finding, the message, ‘let your baby eat as much food as he will take,’ might logically be developed” (1988:110). Their study of how infant feeding practices change as the child grows older are illuminating. “Rice meals after about 19 months had become more formal and interactive feeding sessions guided by the mother but in which the child had more control over when he stopped eating and was more likely to finish his food” (1988:123).

These examples represent infant feeding methods from what might be labeled “moderate control” cultures. At the other end of the spectrum are three cultures in which children are allowed a far greater degree of autonomy in deciding when, what, and how much to eat. From studies of infant feeding on the Malay peninsula, Wolff (1965) reports that style of living, rather than poverty or lack of available food, accounts for the poor nutritional status of children. Before one year of age, the Malay child is nursed on demand. Beginning at three months, rice gruel is fed to the child by the parents, who coax and encourage him or her to eat. However, once the child learns to walk, he or she is expected to feed him- or herself and is allowed to choose when and what to eat, regardless of the consequences to health. Wolff writes of children who were brought to him suffering from a serious nutritional deficiency or even starvation, brought by a parent who calmly in-formed us that the child ‘refused’ to eat something . . . [the parents] had the conviction that a child, even a young child, has the same inviolable individuality an adult has, that no one can force another human being to do anything against his will. [1965:46]

Wolff stresses that this parental attitude cannot be seen as “conscious neglect”:

Malay parents do not neglect their toddlers. The culture of the Malays, however, seems to attribute independence and responsibilities (in choosing a nutritionally sound diet) to very young children, who unfortunately often are not capable of assuming such independence and responsibility. [1965:47]

In addition to this laissez-faire attitude, Malay toddlers face an additional hazard because there are no fixed patterns or times for meals and members of one family do not necessarily eat meals together. Toddlers roam the village in groups and eat if they are present in a home when food is available (Wolff 1965).

Malcolm (1974) reports a similar pattern of infant-feeding practices in the Asai Valley of Papua New Guinea. In this culture, the demands of the child determine when, what, and how much he eats, from birth onward. Children are allowed to nurse on demand, which enables them to satisfy their nutritional needs themselves until about six months of age. Children between 6 and 18 to 24 months are at a disadvantage, as they are not easily able to get the food they need by themselves. By 18 to 24 months, they are sufficiently mobile and vocal to obtain food for themselves and to feed themselves. Of parental attitude, Malcolm writes,

Mothers appear reluctant to actively encourage their children to eat food at any age. Frequently it is noted that attempts in hospital to feed a sick or lethargic child may distress the mother, her attitude being that, because the child does not want to be fed, he should not be compelled to take food. [1974:341]

The growth rates of the Asai Valley children are among the slowest ever reported, and Malcolm attributes this primarily to the infant-feeding style (1974).

The third example comes from a peri-urban community in Mali (Dettwyler
1985, 1986), where infants join the family around the communal food pot at approximately eight months. Mothers seldom put food directly into children's mouths; children of both sexes, and at all ages, are expected to feed themselves and regulate their own intake. Beliefs about food consumption by children include the notion that a child does not need to eat solid food before eight months; that if a child does not want to eat, it means she is not hungry, and should not be forced; and that only the child herself knows when she is hungry and when she is full. According to adult Malians, people eat primarily to satisfy hunger rather than for health reasons, and you can't tell if someone is hungry simply by looking.

Differences in growth and morbidity patterns of infants in this population are associated with the degree of control mothers exercised over food consumption, rather than differences in socioeconomic status (Dettwyler 1985, 1986).

When discussing the feeding of sick children, mothers were upset by my suggestions of coaxing or bribery. They were outraged by descriptions of infant-feeding practices in the United States (high chairs, bribery, threats, guilt), viewing them as violations of a child's dignity and right to privacy. Malian children do have one advantage over the Malay toddlers described by Wolff, which is that Malian meal times are fairly regular, and children are offered an additional meal in the late afternoon (Dettwyler 1985, 1986).

Summary and Conclusions

The evidence discussed above reveals wide cross-cultural variation with respect to two aspects of food consumption in young children: degree and kind of parental/caretaker control. I have shown that a variety of techniques are used to get children to eat foods they don't want to eat, or to eat more than they want, ranging from force-feeding, through punishment and threats, to positive techniques including food games, bribes, rewards, coaxing, and encouragement. Finally, I have described several cultures in which children are granted autonomy in feeding decisions that, because of their nutritional and medical consequences, would be considered negligent or even abusive in the United States.

What are the implications of this survey? First, it reveals a critical need for better documentation of this aspect of food consumption in young children. The study of infant nutrition and malnutrition is incomplete without data on how children are actually getting food, and who makes the decisions about what, when, and how much a child eats. Until we have this information, we cannot assess the relative contribution of degree and type of caretaker control to the nutritional status of young children, relative to such variables as general food availability, poverty, and traditional children's diets.

These data will also allow us to answer a number of important questions:
1. To what degree do laissez-faire styles of infant feeding lead to under- or malnutrition in varying circumstances, where food is more than adequate, marginally adequate, or inadequate (either due to food availability or poverty)?
2. To what degree do "maximal control" styles of infant feeding lead to obesity in children where there is an overabundance of food resources, including highly refined and processed foods?
3. How and to what degree can we change infant feeding styles to promote optimal nutritional status for young children?

Second, this brief comparative analysis has highlighted the variety of attitudes and approaches to child rearing generally, and child feeding in particular. Food plays a pivotal role in the first interactions an infant has with its environment and with its culture. The study of infant feeding gives us a window through which to examine how children develop life-long attitudes toward hunger, satiety, food, and eating, and how parent-child power relationships are established through the control of food consumption.

Notes

Acknowledgments. This research was supported in part by a fellowship from the National Endowment for the Humanities. I also
wish to thank Steven P. Dettwyler, the participants at the 1988 meetings of the Society for Cross-Cultural Research and the Association for the Study of Food and Society, and the anonymous reviewers, who provided valuable feedback on earlier versions of this report.

Because the phrase "infants and young children" is cumbersome to repeat every time, the terms "infant" or "young children" are used in this report interchangeably to refer to children between the ages of birth and five years.

The term "parental/caretaker" is used to refer to the person(s) responsible for food consumption decisions involving infants and young children. This person may be the mother or father, or it may be another relative, a co-wife, neighbor, or friend. In some cases, it may not even be an adult, as sibling caretakers often make these decisions for their young charges.

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Although Lee (1979) states that high incidences of violence tend to be restricted to large sedentary aggregated Basarwa (Bushman, San) communities, some authors have assumed that the same rate of violence can be found among mobile foraging Basarwa (e.g., Knauf...