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## SOME THOUGHTS ABOUT INFANT DAYCARE

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For approximately 20 years, social scientists have debated the effects of daycare on children's development. The character of this debate has varied in response to a multitude of social, economic, and scientific factors. Initially, research efforts were focused on three-and four-year-old children in an attempt to address the implicit question: "Is daycare bad for children?". By the early 1980's, the results of several studies, mostly conducted in high quality daycare centers, had fostered a widespread consensus that, contrary to the dire predictions of attachments theorists, nonparental care begun in the third year of life or later *need not* have adverse effects on psychosocial development (Belsky & Steinberg, 1978; Belsky *et al.*, 1982; Clarke -Stewart & Fein, 1983). This conclusion had to be qualified, however, because most of the studies involved atypically good programs, ignored family daycare and in-home sitter arrangements, and paid no attention to group differences or similarities with respect to parental values, attitudes, or child characteristics before enrollment in nonparental care.

In any event, by 1980 public concern about nonparental care no longer centered on those who began care as preschoolers—either because it was now a normative and manifestly nonharmful experience for preschoolers, or because the accumulated evidence had become overwhelming. Instead, concern was now focused on infants and toddlers—children who began receiving nonparental care before they had time to establish and consolidate attachments to their parents.

Beginning in 1986, a series of reports in the popular media and in the professional literature suggested that early-initiated nonparental care might adversely affect infant-parent attachment and related aspects of psychosocial development (Belsky, 1986, 1988, 1989). Drawing his conclusions largely from studies in which the Strange Situation procedure (Ainsworth, Blehar, Waters, & Wall, 1978) was used to assess socioemotional adjustment Belsky (1986) suggested that "entry into daycare in the first year of life is a "risk factor" for the development of insecure-avoidant attachments in infancy and heightened aggressiveness, noncompliance, and withdrawal in the preschool and early school years." (p. 7).

Our own appraisal of the evidence led us to consider these strong conclusions unwarranted. During the past three years, as a result, we have undertaken a thorough review of the theoretical and empirical literature evaluating the association between nonparental care and children's development (Lamb & Sternberg, 1989, 1990; Lamb, Sternberg, & Prodromidis, 1990). In this paper we summarize some of our conclusions and offer suggestions about fruitful directions for future research.

It has become clear that one cannot study daycare as a unidimensional construct. There is a great deal of variation in what it means to be "in daycare": The type of care, extent of care, age of child at time of enrollment, age at time of assessment, and quality of care are all factors that define the varied meanings of "daycare". Researchers must dissect this complex construct into its components and correlates in order to understand how they interact with one another to influence the developing child. Here, we review the evidence concerning some of these factors.

Perhaps the first issue to receive attention was the type of alternative care to which children were exposed. Scarr and Hall (1984) reported that children who entered daycare before their second birthday were less cooperative, more aggressive, and less competent intellectually than their counterparts in family daycare and exclusive maternal care arrangements. In another study, Moore, Snow, and Poteat (1988) compared kindergarten children with divergent childcare histories-family daycare, center daycare, and maternal care-on a variety of cognitive and social measures and found no differences among the groups. And our research in Sweden comparing children who entered family or center daycare at 16 months with children who remained in the primary care of their parents revealed no group differences on multiple measures of intellectual, psychological, and social development one, two, and three years after enrollment in daycare (Broberg, Hwang, Lamb, & Ketterlinus, 1989; Broberg, Lamb, Hwang, & Bookstein, 1989; Lamb, Hwang, Bookstein, Broberg, Hult, & Frodi, 1988; Lamb, Hwang, Broberg, & Bookstein, 1988; Sternberg, Lamb, Hwang, Broberg, Bookstein, & Ketterlinus, 1990). Finally, a recent reanalysis of data from sixteen studies evaluating the association between nonparental care and the security of infantmother attachment revealed no reliable differences among children who were cared for in daycare centers, family daycare homes, or exclusively by their mothers (Lamb et al., 1990). In sum, a review of the available evidence suggests that the type of care received does not affect children's adjustment.

Scholars have recently paid extensive attention to the importance of quality of care received in both the home and the alternative care settings. This emphasis is in line with research demonstrating the importance of sensitive and responsive caretaking for optimal adjustment (Ainsworth et al., 1978; Clarke-Stewart, 1973; Lamb, 1978; Lamb & Baumrind, 1978; Lamb, Thompson, Gardner, Charnov, 1985). Although little disagreement exists with respect to this issue, it is unfortunate that most researchers have failed to include indices of quality of alternative care in their studies, as documented in a review of the literature by Lamb and Sternberg (1989), and in Lamb et al.'s (1990) subsequent reanalysis of the evidence concerning daycare and attachment. When quality has been measured, it seems to have a major impact on children's development. In Sweden, for example, Lamb et al. (1988, 1988, 1989; Sternberg et al., 1990) found the quality of home care to be the most important determinant of psychosocial and intellectual adjustment; the quality of alternative care had nearly

equivalent importance. Scarr and her colleagues (McCartney, Scarr, Phillips, Grajek, & Schwarz, 1982; Scarr, 1984), meanwhile, have shown that poor quality alternative care is associated with poorer linguistic, cognitive and social outcomes than is high quality care. Finally, Howes and Olenick (1986) found that children who were in high quality daycare were more compliant and less resistant to adult authority than children in low quality care, and Vandell, Henderson and Wilson (1987) reported that the quality of daycare experienced by 4-year-olds was related to ratings of empathy, social competence, and social acceptance four years later. Thus although researchers have not yet developed very sensitive or satisfying measures of the quality of care, there is a growing consensus that the effects of nonparental care are dramatically shaped by variations in the quality of care.

Just as the quality of care varies widely, so too does the extent of care, especially where infants and young children are concerned. Unfortunately, however, there is a great deal of variability in the manner in which "extent of care" is defined. The term "full-time daycare" is used by different researchers to refer to daycare experiences ranging from 20 to 35 hours per week. The rationale for distinguishing between full-time and part-time case is often unclear and in some cases appears to be based on post hoc considerations rather than on apriori predictions regarding the ways in which varying amounts of daycare might affect infant development. Some researchers distinguish but two groups of children—those in daycare and those in home care—and some provide only the average amount of daycare, without specifying the criteria used to assign children to their "daycare" group. Such inconsistencies across studies make it difficult to compare results. In our recent reanalyses, we found no consistent associations between extent of care and security of attachment as measured using the Strange Situation (Lamb et al., 1990). There were, however, differences among infants on ratings of avoidance, with levels of avoidance being higher when children spent more time in non-parental care. Perhaps a more fruitful way of approaching this issue in the future would be to view nonparental care as a continuous variable, particularly as most American infants now experience some nonmaternal care, ranging from a few hours of babysitting to 40 hours of regular non-maternal care per week.

In attempting to understand how daycare affects children, it is also imperative to include information about both the age of enrollment and the age of assessment. Our recent reanalysis suggested significant associations between age at enrollment and attachment classification (Lamb et al., 1990). The rates of secure attachment were lower among those infants who entered nonparental care between 7 and 12 months of age rather than before 6 months of age. And many of the results obtained in our reanalysis were different for 10-to 15-and 16- to 26-month-old infants, underscoring the need to consider age at the time of assessment when evaluating and comparing research findings.

Conceptual problems also preclude confident assertions about the effects of infant daycare. There has been an unfortunate tendency among researchers to rely almost exclusively on the Strange Situation to assess the effects of infant daycare. This practice of focusing primarily on one measure is problematic, particularly when the validity and reliability of this measure have been challenged (Lamb et al., 1985). In addition,

researchers use data gathered with the Strange Situation in a variety of ways. In studying the relationship between nonparental care and attachment, for example, some researchers use the classification categories (secure, resistant, and avoidant) to index the quality of relationships whereas others focus on ratings of behavior—particularly avoidance and resistance—in the reunion episodes. Belsky (1986, 1988, 1989) has emphasized that among those daycare infants classified as insecure, the avoidant pattern should and does predominate. In several recent studies, however, researchers have failed to find differences in the proportions of avoidant and resistant classifications (see Lamb & Sternberg, 1989, 1990, for reviews). If, as Belsky suggests, attachment theory predicts an association between daycare and avoidant attachment, then the absence of a clearcut pattern in this regard raises questions regarding the meaning of "insecurity" in daycare infants.

Because the Strange Situation was developed and validated with infants who were cared for primarily by their mothers, there is in any event some questions regarding its validity for assessing attachment in infants experiencing daycare. Reactions to the Strange Situation are influenced by social and cultural contexts, and thus the Strange Situation may not have the same psychological meaning for infants of employed and unemployed mothers (Lamb et al., 1985; Lamb & Sternberg, 1990). For example, although children who are accustomed to brief separations by virtue of repeated day-care experiences may behave "avoidantly", their behavior might actually reflect a developmentally-precocious pattern of independence and confidence rather than insecurity (Clarke-Stewart, 1988, 1989). As a result, it is inappropriate to speak of insecure attachments in the absence of information concerning the antecedents of "insecure" or "avoidant" behavior in daycare children. Such studies have not been conducted.

In any event, the evidence regarding the association between quality of infant-parent interaction and subsequent Strange Situation behavior is quite weak and inconsistent even when research has been conducted with samples of children cared for exclusively by their mothers (Lamb et al., 1985). Furthermore, "avoidant" behavior in daycare children may not have the adverse implications for future behavior claimed by Belsky and other advocates of the Strange Situation procedure. The predictive validity of the Strange Situation is actually much weaker than is often claimed—i. e., the association tends to be found only when there is stability over time with respect to family circumstances and caretaking arrangements (Lamb et al., 1985)—and thus the hypothesized relationships among daycare, insecure/avoidant attachment, and subsequent maladjustment need to be evaluated empirically. There is as yet no evidence that "avoidant" daycare infants in fact behave any differently in future years than those who behave "securely" in the Strange Situation.

Whether or not daycare increases the frequency of "insecure" attachments, and whether or not insecure/avoidant attachments are predictive of subsequent psychosocial problems, the observation of Strange Situation behavior at best provides a very narrow assessment of the effects of daycare. We need studies that sample a broad range of outcomes, and follow subjects through time, so that the extent and longevity of any effects can be traced. Regardless of their breadth and perseverance, furthermore, the

increased "risk" associated with daycare is such that the majority of infants receiving out-of-home care have secure attachments to their mothers (Lamb et al., 1990). It is obviously important not to exaggerate the potentially negative effects of out-of-home care on infant-parent attachment.

In sum, despite two decades of intensive research, the effects of daycare remains poorly understood. In large part, the lack of progress reflects the extent to which researchers have been preoccupied with the "wrong" questions—first asking "is non-maternal care bad for children?", instead of "how does nonmaternal care affect children's development?" and later remaining focused on the effects of nonmaternal care per se instead of recognizing that nonmaternal care experiences have a myriad incarnations and must always be viewed in the context of other events and experiences in children's lives.

Our clumsy investigative strategy notwithstanding, we can actually answer a few of the simpler questions with some confidence. We now know, for example, that nonparental care experiences need not have harmful effects on children's development —the majority of infants and children receiving out-of-home care do not differ systematically from the majority of children cared for exclusively at home. We can also assert that different children appear to be affected differently by nonparental care experiences, although we remain ignorant about most of the factors that mediate these differential effects. The quality of care received both at home and in alternative care facilities appears to be important, whereas the specific type of care (exclusive home care, family daycare, center daycare) appears to be much less significant than was once thought. There is also suggestive evidence that the extent of regular nonparental care and the age of onset are influential. Child temperament, parental attitudes and values, preenrollment levels of child functioning, gender, and birth order may all have an impact, but reliable evidence is lacking. Unfortunately, many of the studies we have reviewed were originally designed as studies of maternal employment rather than as studies of daycare, and so there is vast (and poorly specified) variability within and among studies with respect to the actual care arrangements, the amount of care received, the age at which it began, and the ways in which outcomes were assessed. Even when the same outcomes—such as the security of attachment—are assessed, variation in the age of assessment, means of quantification, and the composition and selection of comparison groups preclude even tentative conclusions about specific effects. We can only hope that the current wave of research on daycare comprises betterdesigned studies yielding clearer conclusions than those of the last 20 years.

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