

REVIEW

Constructing the Child: Relations between Parents' Beliefs and Child Outcomes

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The context of children's development includes parents' belief-perspectives regarding the child, the parent, and their respective roles. Although parent beliefs have received a good deal of attention recently in the developmental literature, the focus here is explicitly child centered, determining whether beliefs, both global and specific, make a difference for the child. A model is presented that describes the relation of beliefs to other aspects of the socialization system. In addition, the processes that might account for the influence of parental beliefs on children are discussed. Directions for further research are suggested, including a proposal that greater attention be given to more fundamental belief-constructs, such as those dealing with the relative contributions of child and parent to the developmental process. © 1992 Academic Press, Inc.

Much attention has been directed in recent years to understanding the social context of development. It is now commonly acknowledged that models of development taking as their unit the individual, or resting (explicitly or implicitly) on processes or structures endogenous to the individual, overlook the critical importance of self-and-others-in-interaction. Indeed, social relations shape a child's emerging characteristics from birth. This social context consists not only of immediate interactions between child and adult, and between child and peer, but also of others' representations of children and childhood. This "belief-context" can be studied at the level of culture-wide values and attitudes, but it can also be examined at the level of specific parent-child relations, where such beliefs are not only reproduced in variously elaborate form but also assume particular meanings for the individuals involved.

As the burgeoning work in the area of parents' beliefs makes clear [see, for an introduction, a collection edited by Sigel (1985), and reviews by Goodnow (1988), Miller (1988), and Goodnow and Collins (1991)], and as this review aims to underscore, parental beliefs are of interest from more than an idealist standpoint. Rather, the study of parent beliefs helps to

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“unpack” the concept of socialization by describing some important mediators of that process.

Parental beliefs may be studied from a variety of perspectives. For instance, they represent an “implicit psychology,” as well as a particularly interesting domain of adult information processing (see, for example, Bacon & Ashmore, 1986; Goodnow, Knight, & Cashmore, 1985; Holden, 1989). In addition, however, they reflect (as do many other beliefs) the cultural *zeitgeist*. For example, numerous observers writing for a popular audience (e.g., Elkind, 1981; Postman, 1982; Suransky, 1982; Winn, 1983) have remarked on the apparently changing cultural images of childhood, in the direction of increasing “adultification,” and argued that they may carry negative implications for children’s emotional well-being.

In the developmental literature, the primary interest has been in how particular beliefs influence the socialization process. More specifically, there is an interest in how one comes to think of oneself and others, and in how these conceptions are formed partly by *others’* conceptions of oneself. Accordingly, this review differs from other recent surveys of the field in taking as its primary focus the links between parent beliefs and child outcomes.

There are several reasons for taking this approach. One is to raise the obvious question of whether or not parent beliefs “make a difference” for the child. Another is to focus attention on the *processes* through which parental beliefs might become salient for the child.

The empirical findings thus far have reached enough of a “critical mass” to make a fairly compelling case for the significance of parent beliefs to socialization practices; less clear is how to explain their effects. Thus, it may be not only practicable but desirable to take a step back from the data and try to integrate related findings and conceptual frameworks.

Because beliefs, child outcomes, and parents’ behavior form part of a system of influences that are multidirectional, I also present a model that illustrates several ways beliefs may both contribute to and receive effects. Finally, I present suggestions for further research in the area. The most prominent of these is a proposal to identify more fundamental and integrative kinds of beliefs, such as those that concern the relative roles of both child and parent in the developmental process.

Before beginning the review, a word about its scope or inclusiveness is in order. The rubric of “parent beliefs” has included a number of conceptually disparate cognitions—attitudes, values, perceptions of the child and of the parent, conceptions of the developmental process, attributions, expectations, knowledge of normative developmental markers, and preferred parenting techniques. This variety of approaches is not surprising, but it makes difficult any attempt to compare results across studies.

Although in this review I take an inclusive view of parental beliefs, my

emphasis is on beliefs that have to do with *the nature of the child and the developmental process*. Thus, particular parental expectations or attributions, as well as more global conceptualizations of the child, are of relevance; general parental values or attitudes, beliefs about appropriate parenting techniques, or parental ideas concerning particular domains of scholastic achievement are not emphasized. Further, the review gives most of its attention to outcomes that can be related to the child's self-image or competence generally, rather than, for example, particular areas of academic competence. My focus also centers on the period of early childhood, in order to highlight the role played by parental beliefs. It seems reasonable to assume that, although their effects are to some extent cumulative, parents' beliefs have their greatest impact before wide experience with a variety of socializing influences (including the child's *self-socializing* efforts).

In reviewing the relevant empirical literature here my purpose is less to establish support for specific relationships between particular kinds of beliefs, and particular child behaviors or characteristics, than it is to suggest a model (conceived both structurally and procedurally) of the influence of parents' beliefs. Accordingly, I include in this survey research that bears on these conceptual issues, even though some—or even most—of the studies have methodological shortcomings (e.g., small sample sizes, poorly validated measures) (see Holden & Edwards, 1989). Further, this review is limited (somewhat arbitrarily) to work published in English within the last 20 years.

A PROPOSED MODEL: IN BRIEF

I will describe a general model of the role of parent beliefs in affecting children, here in schematic or structural terms (see Fig. 1). In this form, the model is essentially similar to others that have been proposed (see, for example, Bacon & Ashmore, 1986; McGillicuddy-DeLisi, 1985; Sigel, 1986). The broad outlines of the model are presented first; later, I fill it in with supporting evidence from empirical studies.

The model shows parental beliefs, both global and specific, joining parental behavior in mediating child outcomes. Besides acting as a "filter" for aspects of the family's environmental context, parents' beliefs may actually *moderate* environmental influences on parental behavior. In turn, behavior influences beliefs—for example, when beliefs serve a "justifying" function (see Goodnow, 1985). Parental beliefs affect child outcomes indirectly, through their influence on parental behavior—both "proximal," situation-bound behavior, and arrangements and relationships that persist over time and place. Beliefs, in turn, are affected by the parent's perceptions of the child, particularly when the two are highly discrepant. Moreover, parents' beliefs may moderate parental percep-

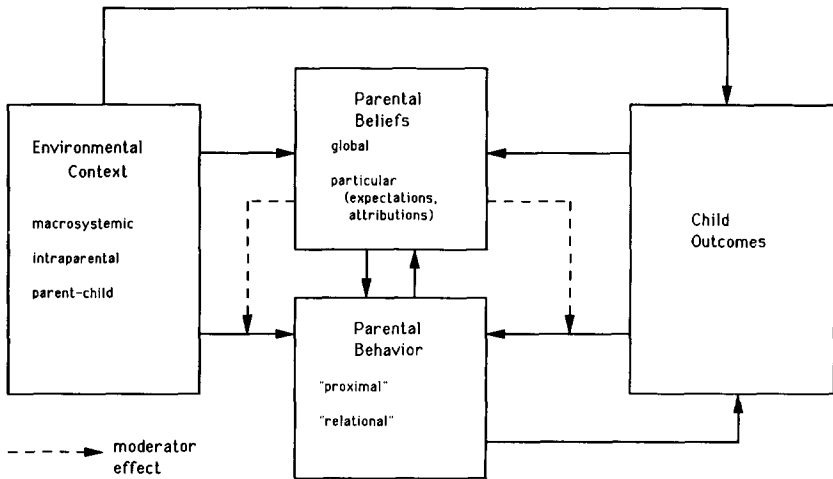


FIG. 1. Role of parental beliefs in child socialization.

tions of child characteristics, thereby further influencing parents' responses. Finally, through a process of abstraction dependent upon the perceived "strength" of the belief-message, the child's level of cognitive development, and the affective quality of the parent-child relationship, the child may come to adopt beliefs about him- or herself, and concomitant behaviors, that are consistent with parents' beliefs.

To illustrate one portion of this model, a number of studies suggest that in situations where a child is at risk—either because of early biological insult or from exposure to endemic stressors such as poverty or parental mental illness—parents' conceptions of the child may ameliorate (or exacerbate) child outcomes. By mediating between the risk-condition and parental behavior, beliefs can serve to maintain a positively functioning family system (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Field, Widmayer, Stringer, & Ignatoff, 1980; Newberger, 1980; Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987). Whether parent beliefs moderate the effects of environmental stress (as Sameroff and his colleagues propose), or stress moderates the influence of beliefs (as Newberger proposes), depends, perhaps, on the relative extremity of either beliefs or stress, and on whether the focus of interest is effects for the child or effects on parental behavior.

ELABORATING THE MODEL

Environmental Context

Because the emphasis of this paper is on child outcomes, it is that part of the general model that I will develop in most detail. However, parents'

beliefs themselves arise in an environmental context, which also affects both parental behavior and child outcomes. This context can be conceptualized as operating at three levels of decreasing generality, here termed "the macrosystemic," "the intraparental," and "the parent-child."

The macrosystemic level. Because parents' beliefs inhere within a broader context of knowledge and ideology that is normative and culturally determined, they are often *social* representations, rather than individual constructions (see Moscovici, 1981); borrowing Goodnow's term, they are "ready-made ideas" (Goodnow, 1985). A number of studies now have documented cross-cultural differences in parents' beliefs: comparisons have included developmental expectations of Japanese and U.S. mothers (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980), Lebanese and "Anglo" mothers in Australia (Goodnow, Cashmore, Cotton, & Knight, 1984), and two Israeli ethnic groups (Ninio, 1979, 1988); expectations and attributions for academic achievement of American, Japanese, and Chinese mothers (Stevenson & Lee, 1990); and conceptions of the developmental process among groups of Anglo- and Mexican-American mothers (Guitierrez, Sameroff, & Karrer, 1988). Taken together, the results suggest that it is primarily more general and abstract knowledge/beliefs about development that are gained vicariously (even by non-parents—see MacPhee, 1984; Ninio, 1988), through one's culture or subculture, whereas ideas associated with more specific skills and techniques of parenting are more likely to be acquired "on the job" (see MacPhee, 1984).

Not surprisingly, certain within-culture differences, particularly with respect to educational and socioeconomic status, and sex roles, are also associated with parental beliefs (see MacPhee, 1983, 1984; Miller, 1988; Ninio, 1988). For example, differences between mothers' and fathers' beliefs are to be expected not only as a result of their own socialization but because of the typical disparity in their direct parental experience. Somewhat contradictory research findings have emerged, however, due probably to the inconsistency of belief measures; those assessing more specific and concrete parenting tasks are more likely to demonstrate effects of parental experience (see Clarke-Stewart, 1978; Galejs & Pease, 1986; Holden, 1988; Knight, 1981; McGillicuddy-DeLisi, 1982, 1985; Miller, White, & Delgado, 1980; Russell & Russell, 1982).

Turning to more specific societal-level factors, there is evidence that chronic stress conditions also exert considerable influence on the beliefs-behavior-outcomes system. Such stress factors include not only the demographic markers of low income and little education but also single- and/or teenage parenthood; parent's mental illness; minority status; work requirements and satisfactions; and poverty of social support (see Bronfenbrenner, Alvarez, & Henderson, 1984; Conger et al., 1984; Field et al.,

1980; Sameroff et al., 1987; Stevens, 1988). Findings consistent with this view also come from studies of abusive/neglectful parents' perceptions of children (e.g., Azar, Robinson, Hekimian, & Twentyman, 1984; Bugental, Blue, & Cruzcosa, 1989; Larrance & Twentyman, 1983; Newberger, 1980; Trickett & Susman, 1988).

The intraparental level. At the level of the individual, socialization processes are affected by a parent's particular history, including family history, and by the kinds of psychological resources and emotional needs that arise from it. These factors influence one's schemas for self and others, and for one's ability to be effective in relationships, including the parent-child relationship (see Belsky, 1984; Crowell & Feldman, 1988; Frank, Hole, Jacobson, Justkowski, & Huyck, 1986; Galejs & Pease, 1986; Lawton & Coleman, 1983; Mondell & Tyler, 1981; Sameroff et al., 1987; Tower, 1980). Beliefs reflect not only one's cultural and subcultural membership, but one's own sense of self as well.

The parent-child level. Finally, also presumably impacting on the parent and child are a variety of temporary or situation-specific demands, relating to the nature of the parenting task (discipline, instruction, play, etc.) (see Johnson & Martin, 1985), the form of the child's behavior (see Dix, Ruble & Zambarano, 1989; Grusec & Kuczynski, 1980; Rubin et al., 1989), and to whether the situation is public or not (see Holden, 1989). (I reserve discussion of the child's role in influencing parental beliefs for the section on "processes.")

Relations between Beliefs, Behavior, and Outcomes

Although the focus of this review is on child outcomes, implicit in any discussion of the influence of parents' beliefs on children is the assumption that such beliefs find expression in more or less direct ways that are communicated from parent to child. Now, the relationship between beliefs and behavior is one that has bedeviled social psychologists (and opinion survey research in general) for years. In part, this stems from the difficulty of obtaining valid measures of people's beliefs or attitudes, but also from the fact that behavior in almost any situation is determined by multiple factors, not just by what one professes to believe. The study of parent beliefs, although no less immune to these problems (see Holden & Edwards, 1989; Sigel, 1986), has pointed to some issues which are more specific to the parenting domain. Many of these have been extensively treated by Goodnow (1984, 1985; Goodnow & Collins, 1991) and Sigel (1986), among others, so I will only highlight briefly those that seem to be most important.

It seems particularly likely, in light of the emotional ties inherent between parent and child, that parents sometimes act first, and reflect later. That is, not all of how parents respond to children is deductively deter-

mined; in fact, parents may construct beliefs in order to rationalize or justify the way they already behave (see Goodnow, 1988). Further, it is clear that parental behavior is influenced by multiple factors, normative as well as situational, that extend beyond individual-level beliefs. Rather than proposing that parental beliefs have some kind of preeminent status as predictors, investigators typically are interested in whether beliefs contribute effects which are not simply accounted for by other factors.

To further complicate matters, the intimacy, duration, and complexity of the parent-child relationship make any limited observation of parental behavior suspect to sampling errors. Beliefs that are of some central importance in a parent's psychology are likely to have a host of subtle effects not easily captured through brief observation. For example, ideas about what is valued, expected, tolerated, disapproved, and so on are likely to be communicated to the child not only through what the parent does but what the parent does *not* do. They also can be expected to influence the kinds of physical and temporal environments of objects and opportunities the parent provides for the child. Parental beliefs both categorize child behavior, and provide labels for perceived qualities of the child's personality (see Bacon & Ashmore, 1986). Thus, many beliefs are probably revealed over a history of interactions in a variety of contexts, rather than in isolated observations (see also McGillicuddy-DeLisi, 1985).

Thus, another reason why parental beliefs have been inconsistently linked with parental behavior is that often what is studied is what I would term "proximal" behavior: practices (whether proposed hypothetically or observed naturally or in the lab) that are task or situation bound. In my view, these behaviors should be distinguished from the cumulative interactional history of the parent-child relationship. It is at this level that beliefs about children and development could be expected to exert much of their influence on the child.

Indeed, in more than one instance (e.g., Crowell & Feldman, 1988; Hess, Holloway, Dickson, & Price, 1984; Jennings & Connors, 1989; McGillicuddy-DeLisi, 1985) studies have found relationships of parents' beliefs to child outcomes that are independent of, or even insignificantly related to, parents' observed behavior. How is one to explain these findings, except by reference to some aspect of parental behavior to which the particular research design may be insensitive? I think to understand these results we need to consider a broader class of beliefs. Some of these are surely represented to the child as "suggestions," attributions, or expectations that are often communicated nonverbally, and unconsciously. I return to this point in the section on "processes."

Reviewing Links between Beliefs and Parents' Behavior

In the model offered here, beliefs are not simply consequences of cul-

tural, personal, or situational experience; as suggested earlier, they may actively mediate between such environmental factors and parents' behavior, moderating how parents respond. Although, for reasons just mentioned, the observed correspondence between beliefs and behavior is far from exact, there is considerable empirical support both for their association and for the role of beliefs as moderators of the environmental context.

To structure the review, in this and the section following I take up first studies that assess fairly global beliefs—views of the nature of the child, the developmental process, and the interpersonal context of the family. Next reviewed are studies that focus on rather specific domains or aspects of child competence; these tend to be either “expectations” or “attributions,” though the two constructs are probably reciprocally related rather than independent. For instance, the attributions parents make for children's behavior may be influenced by the competence level they feel is “reasonably” expectable at a given age; conversely, those expectations themselves may be affected by attributions of what it is (e.g., effort, innate ability) that motivates developmental change.

Global beliefs. One theme that emerges from the research has to do with the parent's view of the child as an active contributor to the developmental process. For example, a mother's perception of her infant as a communicative partner has been associated with a more facilitative interactive style (Tulkin & Cohler, 1973). Similarly, parents who hold more abstract “interpersonal constructs” (i.e., attributing children's behavior to intrinsic motivations and dispositions) seem to use more “person-centered” communication styles, which are more likely to encourage a child's reflection (Applegate, Burke, Burlison, Delia, & Kline, 1985). Mothers' perceptions of the importance of children's intrinsic motivation have also been linked to a less-directive interactive style (Jennings & Connors, 1989).

An extensive ETS-sponsored study (see McGillicuddy-DeLisi, 1985; Sigel, 1986) demonstrated significant links between mothers' (but not fathers') belief in the “child as an active constructivist” and their “distancing” behavior (presumed to promote the child's representational abilities) in a laboratory task. An “authoritative” parenting style (which implicitly acknowledges the child's autonomy as well as need for control) has been shown to be significantly related to effective parental “scaffolding” of tasks with children (Pratt, Kerig, Cowan, & Cowan, 1988). And, in the study noted earlier, a portion of the effect on parental behavior coming from poverty-induced stress was mitigated by parents' child-rearing values and perceptions of children (Conger et al., 1984).

Expectations and attributions. In a cross-cultural investigation, Amer-

ican mothers who expressed earlier expectations for children's verbal assertiveness had significantly different communicative strategies with their children (the relationship was not significant for a Japanese sample) (Hess et al., 1980). However, apart from a literature concerned with the expectations of abusing parents (e.g., Azar et al., 1984; Twentyman & Plotkin, 1982), parents' expectations are more typically a focus of interest in predicting child outcomes (see the section following).

Attributions include explanations for particular child behaviors or characteristics, in addition to ascriptions of influence for the developmental process in general (see Dix & Grusec, 1985, for further discussion of features particular to attributions made about children). Because the attributions one makes are often strongly associated with particular emotional responses (see Weiner, 1980; Graham, 1984), it seems likely that they have important effects on the parent-child relationship.

For example, parents' responses to their child's behavior in a particular situation are probably influenced by the degree to which they see the child as "responsible" for it—an attribution that rests on inferences of the child's competence to understand his or her own actions and to choose other ones, where appropriate (see Dix et al., 1989). Although they relied on mothers' reports of how they would be likely to discipline hypothetical child misbehaviors, Dix and his colleagues (1989; Dix, Ruble, Grusec, & Nixon, 1986) have demonstrated experimentally that the type of response is mediated by mothers' consideration of the child's understanding: power-assertive rather than inductive techniques were favored more when the child was thought to "know better." Interestingly, the mothers in this study (Dix et al., 1989) who were classified as more "authoritarian" in their parenting practices also attributed more competence to children, but it was their attribution scores, independently of their "authoritarianism," that predicted their choice of discipline. The focus on parental attributions of this sort may help explain findings that parental discipline techniques (e.g., Grusec & Kuczynski, 1980) or teaching strategies (e.g., Johnson & Martin, 1985) are rather inconsistent from one situation to another; this variance could be accounted for, in part, by the degree of competence parents attribute to the child in the particular instance.

Finally, parental attributions have been documented in studies of maltreating parents, and suggest that they may contribute to a belief structure that is both unrealistic and negative in its bias toward the child. Abusing parents tend to have unrealistic expectations for their children (Azar et al., 1984), and to perceive them negatively (Trickett & Susman, 1988). They also tend to make attributions for children's behavior that are markedly opposed to those typically made by nonabusers (Larrance & Twen-

tyman, 1983). As descriptive data, these results do not establish firmly links between these cognitions and abusive parenting behavior, but seem nonetheless worthy of further follow-up.

It should be emphasized that any of the correlational findings are subject to alternative interpretations. For instance, beliefs may reflect behavior, rather than the other way round; or, beliefs and behavior may be only spuriously related—for example, when both derive from normative social expectations. However, the extent of the ties between them suggests, at the least, that an adequate accounting for parental behavior—even fairly circumscribed behavior—should include some understanding of its cognitive mediators.

Reviewing Links between Beliefs and Child Outcomes

As noted earlier, some investigators study explicitly links between parents' beliefs and child outcomes, whereas others include parent behavioral measures, but note that not all such links can be accounted for by these measures. Both sorts of findings focus attention on the child as the recipient of parents' ideas, without specifically identifying the underlying processes of influence. Once again, the data are mainly correlational, so conclusive interpretation is elusive. In particular, the *child's* influence on parents' beliefs is a plausible effect; in the section on "processes" I consider this possibility in more detail. Again, the findings are organized here in two subsections: global beliefs, and expectations and attributions.

Global beliefs. A number of studies take an approach to parents' beliefs that focus on parents' views about the nature of the young child, or on their conceptualization of the developmental process. For example, Sameroff and his colleagues have proposed that parents' thinking about children and development can be characterized by the degree of complexity with which it acknowledges the roles of parent, child, and developmental and situational contexts (see Sameroff, 1975; Sameroff & Feil, 1985). Parents' conceptions of development can be described, in Sameroff's terms, as ranging from "symbiotic" (where the parent's own projected needs dominate) to "perspectivistic" (where child outcomes are seen as open ended and multiply determined). The advantage to this framework is that it places beliefs in a broader context of developing social cognition, which constrains the kinds of beliefs parents hold about children, as it does thinking about any social relationships.

In their longitudinal study of the effects of multiple risk factors (including poverty and maternal mental illness) for children, Sameroff and his colleagues (Sameroff & Seifer, 1983; Sameroff et al., 1987) assessed parents' beliefs during the child's first year, using the "Concepts of Development Questionnaire," along with other measures of parental attitudes and values. Children's verbal IQs were tested at four years of age, and

socioemotional competence (with family, peers, and self) was assessed through parental interviews. After SES, what was termed "parental perspectives" was the next greatest predictor of intellectual performance, accounting for 25% of the variance in multiple regression (SES accounted for about 40%). Effects were smaller for children's socioemotional functioning, where the greatest predictor was mother's mental illness (around 16% of the variance), followed by social status (around 10%), and parental perspectives (around 7%) (Sameroff & Seifer, 1983). Although, not surprisingly, a model including *multiple* environmental risk factors, rather than any single one, provided the best account of developmental outcomes, parental beliefs constituted a significant part of the context that regulates such effects.

A research program at ETS, cited earlier, examined parent beliefs from a more specific theoretical perspective (see McGillicuddy-DeLisi, 1982, 1985; Sigel, 1986). The sample included mothers and fathers in over 100 families, with preschool children who had no preschool or day-care experience. As noted earlier, the investigators focused on a dimension of parental beliefs (confirmed through principal component analysis of parents' responses on a lengthy open-ended interview) they termed a view of the "child as active constructivist" in his or her own development. Parents scoring high on this dimension were likely to refer to internal cognitive processes of the child (such as experimentation, analysis, and self-regulation) as playing an important role in conceptual and behavioral development.

Child outcome measures included a variety of assessments of children's ability to use mental representations, in tasks including conservation, mental imagery, categorization, knowledge of social conventions, and interpersonal problem-solving strategies. Parents' teaching behaviors in two laboratory tasks were also assessed. Path analysis confirmed significant direct effects of parental beliefs (i.e., independent of parents' teaching strategies) on children's representational competence, for both mothers and fathers (independent contributions to the variance of around 20 and 24%, respectively) (McGillicuddy-DeLisi, 1985). The direct effects were in addition to some indirect influence (through parents' behavior) which was significant for mothers but not fathers. These results call particular attention to parental beliefs, because they were not completely confounded with parents' situational behavior, which (for reasons already stated) may reflect beliefs imperfectly at best.

Using similar measures of parent beliefs about the child's role (active versus passive) in development, Johnson and Martin (1985) found some significant relationships with measures of children's academic knowledge. Interestingly, however, the relationships varied depending on whether parents' belief responses referred to either teaching situations or

child-management situations. A *passive* model of the child in teaching situations was significantly correlated with children's competence, whereas according child a more *independent* role in situations of behavior regulation was significantly associated with children's success. One interpretation of these results is that they reflect normative expectations, which parents may feel prescribe a greater role for the parent in instruction, and for the child in social learning.

Using an older questionnaire approach to parental beliefs, Schaefer and Edgerton (1985) bring together in their "Parental Modernity (P—M) Scale" items pertaining to parenting attitudes (e.g., toward "authoritarian" control), values (e.g., conformity versus self-direction), and beliefs about the nature of children and the learning process. Here, as in the other two approaches just described, the aim seems to be to capture fundamental schemas regarding children and the developmental process, rather than situation- or domain-specific cognitions of parents.

In contrast to Schaefer's earlier work with the "Parent Attitude Research Instrument" (Schaefer & Bell, 1958), a measure criticized for its weak behavioral validity (see Holden & Edwards, 1989), items on the P—M Scale were selected expressly on the basis of their ability (in previous tests) to predict differentially children's academic competence in the early school years. Outcome measures used in conjunction with the P—M Scale were teacher ratings and the Iowa Tests of Basic Experience, and Basic Skills. Factor analysis of parents' responses described "progressive democratic" and "traditional authoritarian" sets of beliefs (Schaefer & Edgerton, 1985). The latter factor in particular was significantly negatively correlated with children's academic competence (r 's of about .40 for test scores, and of about .50 for teacher ratings of verbal intelligence). However, there is no way of telling from the published data what the independent contributions of beliefs might be, because family SES, parents' behavior, beliefs, and outcomes all shared significant correlations.

Taking a narrower focus, but addressing some of these confounds, was a recent study of young preschoolers and their mothers, reported by Jennings and Connors (1989). Although their primary interest was the relation of maternal interactional style and child competence, they also assessed (via questionnaire) mothers' perceptions of their children's "task motivation." One reliable factor emerged—mothers' perception of her child's "intrinsic motivation"—and was entered in path analyses of the relations between SES, mothers' directiveness and affective tone (assessed in home observations), and children's cognitive abilities and quality of play.

There were significant direct effects of mothers' perceptions on children's verbal ability, direct as well as indirect (through maternal direc-

tiveness) effects on play complexity, and indirect effects (again, by way of maternal directiveness) on children's perceptual ability. Mothers who perceived more intrinsic motivation in their children were less directive, and their children had higher test scores for both verbal and nonverbal ability. However, although these perceptions were also related to the quality of children's play, it was *greater* maternal directiveness that was positively associated with play complexity. As for the child's verbal ability, the direct effects of mothers' perceptions invite speculation as to the process mediating this relationship, because neither mothers' directiveness or affective tone played such a role.

One study suggests that parents' communicative style mediates between beliefs and child outcomes. Bearison and Cassel (1975) examined the influence of mothers' "social codes"—the basis for their statements aimed at managing children's behavior. These were assessed from their responses to a variety of hypothetical but typical situations, and mothers were characterized as either "position-oriented" (appealing more to rules and status relationships) or "person-oriented" (appealing more to feelings, thoughts, and intentions). Six-year-old children of "person-oriented" mothers performed significantly better on a perspective-taking task requiring them to adapt their communication to a blindfolded listener.

Children's perspective taking, in particular with regard to emotional expression, was also a focus of interest in a study described by Saarni (1985). Here, the overall hypothesis was that part of children's reasoning about the expression of emotion, especially when it might be discrepant with one's true feelings, is socialized by parental ideas. The results from this small sample are diffuse enough to confound interpretation, but I review it in some detail because the study is valuable in pointing the way toward including as child outcomes affective and social responses.

Parents of children aged 7 to 13 were assessed for their attitudes (permissive versus controlling) toward their child's emotional expression; the degree to which they monitored their own expressiveness; and their perception of the general socioemotional climate of their family. Although these encompass more than strictly child-oriented beliefs, they were hypothesized to comprise important aspects of the expectations communicated through parents and internalized by the child. Outcome measures were children's explanations for why someone might display one emotional expression while feeling something different; what the interpersonal consequences of such inconsistency might be; and how they themselves determined how much to reveal of their true feelings.

As expected, the child's age was the major predictor of the sophistication of this kind of social cognition. However, in many cases the belief measures were also significant predictors of the level of children's re-

sponses. For example, mothers who emphasized control over their own and children's emotional expressiveness had children who gave significantly more advanced responses about their own affect regulation; in contrast, fathers—who showed tendencies toward both more and less self-control—seemed to have greater influence on children's reasoning regarding others (Saarni, 1985).

Expectations and attributions. One group of studies has focused on parents' expectations for specific abilities of children (usually preschool aged or younger), assessed either by their estimates of the ages at which they expect most children to have particular competencies or by the accuracy of their predictions of their own child's performance. The former approach, it would seem, is likely to reveal parents' normative understanding and/or values regarding developmental milestones, whereas the latter provides an indication of the sensitivity of parent's knowledge of their own child's abilities. In general, these ideas regarding the "schedule" of children's emerging abilities are important because they are bound to affect parents' efforts to assess, and to influence, their child's developmental progress.

There is limited evidence that accelerated normative expectations may be associated with greater cognitive ability in the child. In a longitudinal study by Hess and his colleagues (1984) both expectations and attributions of mothers were among the significant predictors of children's academic achievement. Measures of mothers' beliefs were taken when their children were preschoolers, and included their estimates for the timing of acquisition of typical abilities and the extent to which they attributed children's intellectual competence to "luck." The earliness of mothers' expectations was a significant positive predictor of children's achievement, though at kindergarten age only, not at 6th grade. A belief in the influence of luck was a significant *negative* predictor, at both kindergarten and 6th grade. Other significant predictors at *both* ages included the mother's communication style with her child, but—interestingly—*not* her actual teaching strategy on a laboratory task. Echoing a theme of this review, the authors suggest that "the teaching style of mothers may express beliefs and relationships that form more pervasive dimensions of the interaction between mother and child" (Hess et al., 1984, p. 1907).

Other studies focusing on child outcomes have assessed the accuracy of parents' knowledge of their own child's abilities (exclusively cognitive abilities, it seems). Conventional developmental theory would suggest that either under- or overestimation of children's competence would be detrimental, because parents who have a more accurate understanding of their child's abilities can presumably offer the kinds of optimally discrepant challenges that promote development.

In studies where mothers have predicted their child's success or failure

on standard intelligence test items or Piagetian tasks, accuracy of estimation *has* been highly related ($r = .80$) to the child's test score (see Hunt & Paraskevopoulos, 1980; Miller, 1986). Interestingly, overestimation was the predominant error in both studies. Interpretation of these results is tricky, however, because there are several plausible explanations for the correlation, besides the one that more intimate knowledge of children's abilities mediates their cognitive development—for example, that both parental accuracy and the child's performance are correlated with the parent's intelligence (see Miller, 1986, for further discussion of this issue). Nevertheless, the hypothesis certainly cannot be dismissed.

Another perspective on this issue is provided by results from an extensive multinational study of parents and children in Japan, Taiwan, and the United States (Stevenson & Lee, 1990). The investigators were interested specifically in beliefs concerning children's academic achievement, as one factor that might contribute to the relatively poor performance of U.S. children on standard tests of math and science. In fact, although mothers in all three cultures showed a positive bias in their estimations of their children's capabilities, American mothers were *least* realistic; that is, they overestimated their children's competence to the greatest extent. U.S. mothers were also distinguished by their attributions for children's academic success; they were more likely than either the Japanese or Chinese mothers to emphasize the role of innate ability and less likely than either group to stress the child's own efforts. Moreover, these kinds of attributions were shown to be significant predictors, independent of parents' education, of children's achievement test scores, in each cultural group (Lee, Ichikawa, & Stevenson, 1987).

To consider further the role of parents' attributions, evidence suggests that these may be particularly salient aspects of children's social environments. For example, children—even with unfamiliar adults in experimental settings—can adopt the attributions such figures make for their social behavior (Jensen & Moore, 1977). Moreover, adults' attributions are likely to be readily communicated to children through affective cues (Graham, 1984). Thus, it comes as little surprise, for instance, that American 5th graders share their mothers' bias toward "innate ability" as an explanation for academic success (Stevenson & Lee, 1990).

Also consistent with these findings is the work of Parsons and her colleagues (Parsons, Adler, & Kaczala, 1982). They assessed parents' beliefs about the mathematics ability of their children, attending 5th through 11th grades. Significant sex-of-child differences emerged in parents' estimations of their child's ability, with daughters seen as having lower ability than sons.

Moreover, children's own perceptions of their math ability, their expectations for further success in math, and their estimations of the diffi-

cultness of math were all significantly related to parents' beliefs about their competence for mathematics. Relationships were significant not only for the self-reported beliefs of the parents but also for children's *perceptions* of their parents' beliefs—implying that children perceive fairly accurately the expectations of their parents. Moreover, a path analysis supported the hypothesis that parental beliefs influenced children's self-concepts, rather than vice versa. In fact, the parents' beliefs were more directly related to children's self-perceptions than were either the child's sex or past math performance. Although parents' own attitudes toward and self-concepts regarding math were also assessed these turned out to be insignificant in predicting children's self-perceptions. Thus, in the words of these investigators, parents (at least for academic performance) are less role models than they are powerful "expectancy socializers."

Complementary findings are reported by Entwisle and Baker (1983). In their study, parents' expectations for children's math performance in the early elementary grades were significantly associated with children's own expectations, as well as with their actual grades in arithmetic. Again, a path analysis gave support to a causal role for parental beliefs. In general, parents expected higher arithmetic performance from *boys*, and in fact boys tended to have expectations for their own performance that were unrealistically high, whereas girls' were unrealistically low.

In contrast to the accumulation of studies examining academic outcomes is the paucity of information suggesting the influence of parents' beliefs on socioemotional characteristics of the child. Notable, then, is a recent study by Rubin and his colleagues (Rubin, Mills, & Rose-Krasnor, 1989), who have examined the relationship between mothers' attributions and expectations for the development of children's social skills and actual social competence as observed in a preschool classroom.

Several interesting findings emerged from this work. First (and perhaps least surprising), was that children of mothers who attached greater *importance* to children's social skills tended, in fact, to be more socially skilled. The more socially successful children were also those whose mothers made more "external" attributions for social skills development; that is, they referred to parents' direct or indirect efforts to help the child to make friends, or to share. In contrast, less socially competent children were associated with mothers who made more "child-centered" attributions—those focusing on innate qualities or abilities of the child. These results are particularly provocative in light of the fact that, from all mothers, the most popular attributions were "child-centered" ones. Together, the data suggest directions of influence from both parents *and* child; however, it is not difficult to see how parental beliefs and children's competence each act to maintain the other. Mothers of children who have

weaker social skills are likely to be less motivated to try to improve them, and indeed may see such efforts as wasted, whereas socially more competent children are likely to benefit from mothers who see reason to be actively involved themselves in promoting those skills.

PROCESSES UNDERLYING THE BELIEFS-OUTCOMES RELATIONSHIP

My purpose in this section is first to review some theoretical perspectives that offer accounts of how parental conceptions may become incorporated into children's self-schemas and actual behavior. This is followed by a discussion of the circumstances under which such influence may be most likely; in particular, I consider some factors that may affect how *accessible* beliefs are to parents, and others affecting the child's *perception* of those beliefs. Last is a consideration of *the child's influence* on parents' beliefs.

Explanatory Perspectives

The issue here is the same one, fundamentally, that concerns those whose focus is parental behavior: how does what is external to the child become internal? Traditional answers have referred to processes such as identification, modeling, and instrumental conditioning. Furthermore, it seems a reasonable assumption, given that for children parents represent powerful and protective figures, that parental ideas (e.g., expectancies, attributions) are more likely—even than many other features of the social environment—to be incorporated by the young child (see Costanzo & Dix, 1983).

However, it also seems probable that different kinds of beliefs (for example, those relatively generalized and abstract, versus those more particular and concrete) relate to both parent behavior and child outcomes in different ways (see Crowell & Feldman, 1988; Holden, 1988; Sonnenschein, Baker, & Cerro, 1989). Some may operate more subtly and implicitly, whereas others affect interaction in more situation-specific ways; some (e.g., expectations and attributions) are likely to influence the child's competence in particular domains, whereas others (e.g., more global conceptualizations of the child) affect the kind of self-image and interactional style a child adopts.

One perspective offered by social psychology is the "self-fulfilling prophecy," a process of expectancy-confirmation that can affect social interaction in a variety of situations (see Darley & Fazio, 1980). In Darley and Fazio's explication, effects can occur at one or more of several stages of the interaction sequence, including the "target's" self-attributions as well as his or her responses. Then, once the target has responded in ways

that objectively confirm "the perceiver's" expectancy, a self-maintaining system has started.

Although the generality of usefulness of the "self-fulfilling prophecy" as a description of interpersonal processes has been questioned (Miller & Turnbull, 1986), it seems highly probable that such effects are most likely within relationships—such as that between parent-child—that are asymmetrical with respect to perceived social power, as well as actual social-cognitive skills. Indeed, others have argued that children's social cognitions (such as attributions) not only reflect their logical analysis of the information available, but are greatly influenced as well by the social norms (including the beliefs of others) they associate with specific situations (Costanzo & Dix, 1983).

A more explicitly developmental model for how expectancies are acquired has been offered by Saarni (1985). Her interest is in how a child's emotion regulation becomes "socialized." Saarni suggests that whether or not an external (other's) "expectation" becomes an internalized "expectancy" depends upon the child's developmental level. (I would add, also on the quality of the parent-child relationship.) First, the parental belief must be perceived by the child in some meaningful way—i.e., it may be assimilated, accommodated to, rejected, or ignored. Such expectations may be nonverbal as well as verbal, and are not necessarily consciously or intentionally communicated.

If the "suggestion" is seen by the child as credible, as valid in terms of his or her own experience, and as valuable (or "useful") in making sense of that experience, it may become part of the child's self-schema, functioning assimilatively in subsequent situations, and influencing both cognitive and affective responses. The model implies, further, that children are more likely to be influenced by parental expectations they perceive as personalized rather than categorical (examples of the latter would include expectations about children in general).

Another model for the internalizing process is given by Vygotsky's "zone of proximal development" (Vygotsky, 1978). Here, parental assistance at a child's instructional level of competence allows what is at first socially accomplished to become under the child's own control. Thus, how the parent conceives of the task, including the respective roles of parent and child within the task, will affect both the interaction and the child's capability for independent success (for example, see Rogoff & Wertsch, 1984). To be sure, the child as well as the adult plays an important role here, but the adult's may be critical in the long run (see Carew, 1980).

This view implies that if parents believe that a task is already easy for a child, or that they are not competent to help, they may not offer the kinds of instrumental support or affective assistance necessary for the

child's success (see Ladd & Price, 1986). Likewise, parents whose views are reflected in an "authoritative" parenting style may be more likely to use effective task scaffolding (Pratt et al., 1988). To cite other examples that are consistent with this perspective, parents may use inductive discipline rather than power assertion if they believe that children lack sufficient understanding of their own behavior (Dix et al., 1989). Parents are also more likely to become involved in promoting their child's social skills if they believe the child needs some "external" assistance (Rubin et al., 1989). On the other hand, parents who credit an child's intrinsic motivation may be less directive in their own interactions (Jennings & Connors, 1989).

More simply, another perspective suggests that parents' beliefs find shape in their mediation of the young child's environment. After all, parents shape—through a variety of beliefs—aspects of space, materials, time, activities, and availability of social partners (see McGillicuddy-DeLisi, 1985; Lawton & Coleman, 1983; Stevens, 1984). Thus, explicit or implicit parental decisions constrain the range of expression of children's characteristics.

Last, attachment theory is now offering a perspective on the internal mental processes mediating parents' relationships with their children. Parental conceptions of oneself and of the child, constructed in part on the basis of how parents have interpreted their own childhood relationships, may operate as "internal working models" (Bretherton, 1985; Crowell & Feldman, 1988). In the history of interactions with parents, such models in turn influence the child's own abstraction of schemas concerning self and others, and expectancies for interpersonal relationships (cf. Saarni, 1985). We know, for instance, that certain aversive family relationship patterns are reproduced intergenerationally (Elder, Caspi, & Downey, 1986; Main & Goldwyn, 1984). The research on parent beliefs would benefit from the inclusion of these perspectives, which have to now informed primarily clinical theory and intervention.

Conditions Affecting the Influence of Beliefs

There is consensus that parents' behavior (and, certainly, child outcomes) is nearly always *multiply* determined; parental beliefs may contribute sometimes more, sometimes less to their ongoing socialization efforts. A task for researchers, hence, is to identify the circumstances which may affect the degree of influence beliefs have on the parent and on the child. We might ask, first, when are parents likely to access their beliefs? and, second, When are children more likely to be affected by those beliefs? A few hypotheses are proposed here.

Accessing the beliefs. Beliefs may become particularly salient in situations where the parent perceives either the child's behavior and/or the

parent's appropriate role as unclear, unexpected, unusual, or ambiguous. These are the sorts of settings likely to set off a "search" for cognitive schemas that will make sense of the experience, often motivated by a high degree of affect. One might include here conditions of perceived discrepancy—between the parents' actual behavior and what is thought to be "ideal" (cf. Lawton & Coleman, 1983); and between their expectations for the child and the child's actual performance. Parents may resolve what is discrepant either by bringing their beliefs into line with "reality" or by attempts to change their own or the child's behavior.

This view would imply, for instance, that the behavior of new parents (who have relatively little information or direct experience to rely on) may be particularly susceptible to influence from their beliefs. As noted earlier, beliefs may assume an important role in moderating parents' responses to major family stressors, such as poverty or mental illness. Encountering atypical child outcomes might also activate beliefs, in particular about what is normative child behavior, as well as about what parental response (concern, delight, puzzlement, intervention, etc.) is called for. However, such outcomes might also force revision of parents' beliefs, in ways that represent either a realistic (or, at least, adaptive) accommodation to individual differences (cf. Affleck, Allen, McGrade, & McQueeney, 1982) or a contributor to a *dysfunctional* transactional system (cf. Bugental & Shennum, 1984).

The child's perception of parents' beliefs. Naturally, to be influenced by parents' beliefs, children must somehow perceive them. In fact, the literature includes a line of research that examines the extent of *agreement*—usually with respect to values and attitudes—between parents and children. Studies that indicated a good deal less concordance than typical parental socialization models would predict prompted attention to children's *perceptions* of their parents' beliefs (e.g., Furstenberg, 1971). Agreement between parents' and children's *actual* beliefs could be low, although children's views could still be influenced by how they perceive those of their parents. However, the accuracy of children's perceptions of parental beliefs is independent (conceptually, at least) from their acceptance or rejection of those views (see Cashmore & Goodnow, 1985).

The available studies are consistent in suggesting that although children do not always *accurately* perceive parental beliefs, when they do their own beliefs are more likely to be consistent with parents' (Alessandri & Wozniak, 1987; Cashmore & Goodnow, 1985; Furstenberg, 1971). Interestingly, another finding in common is that a child's accurate perception is more likely when parents are in close agreement with each other (Alessandri & Wozniak, 1987; Cashmore & Goodnow, 1985). Nevertheless, in Cashmore and Goodnow's (1985) study it was children's *percep-*

tions (accurate or otherwise) of their parents' values—not parents' actual beliefs—that best predicted children's own beliefs.

On the other hand, to focus either on children's ability to report accurately their parents' positions or on intergenerational agreement seems to constrict unnecessarily definitions of what constitutes parental influence. Particularly for young children, and particularly for some kinds of beliefs, typical measures of "agreement" may be inappropriate. What preschool-aged child, for example, is likely to be able to verbalize his or her perception of the developmental process? In this instance we might rather assess the influence of parents' beliefs by rating the quality of the child's play or his or her interactions. That the child represents parental beliefs at a verbal or conceptual level seems implausible.

What factors, then, influence the child's perception and appropriation of parental beliefs? One might be the "strength of the signal." Beliefs that are expressed (through explicit verbalization, or otherwise) in a variety of situations, by more than one source (fathers as well as mothers, for example, but also other adults, siblings, and the media) and that carry affective accompaniment are probably more influential than beliefs that are rarely expressed (even unwittingly), that are in competition with messages communicated by other socializers, or that have little emotional valence.

Another kind of factor has to do with the "fit" between the content of the belief and the child's existing self-schema. Cashmore and Goodnow (1985) have pointed out that the child may resist some parental beliefs (such as "children should clean up their own rooms") because they have a "vested interest" in opposing them. However, many parent beliefs (particularly for the younger child) may provide a way of making sense of his or her experience. The research with parents' internal models of relationships is relevant here: a child may come to "explain" parental rejection or unavailability by incorporating the parent's view that children are indeed "rejectable" or should be "undemanding."

The Child's Influence on Parental Beliefs

Many of the findings reported here plainly raise the issue of whether parents' conceptions indeed affect child outcomes, or whether child characteristics shape parent beliefs. Although the parent-child system is certainly one of reciprocal influence, nonetheless it seems clear that this relationship—at least when children are younger—is asymmetrical. Because many perceptions of children predate one's becoming a parent (see MacPhee, 1984; Ninio, 1988), they are more likely to be sustained than displaced by one's children (see also discussion of an "impression-maintenance attributional bias" in Darley & Fazio, 1980).

My own reading of the empirical literature is that child effects are most important in circumstances that are in some way "exceptional." In part, this is because parental beliefs (as I think the literature shows) are typically derived "from the top down"—from normative, culture-based expectations and assumptions, and from the context of the parent's social-psychological situation. This is not to deny that obvious child characteristics, such as sex, age, perceived competence, perceived physical attractiveness, and perhaps others, influence the kinds of beliefs parents hold. However, it can be argued that such effects merely illustrate, once again, normative cultural beliefs regarding appropriate sex roles, expected competence, and so on.

On the other hand, the studies suggest that parental beliefs are more likely to accommodate to the individual child (or, more precisely, to how the parent perceives the child), rather than vice versa, when the child somehow deviates from expectation. Faced with such circumstances, parents may be forced to reconsider previously held beliefs, or indeed to construct beliefs where there were none.

For example, atypical child behavior seems to affect, in particular, parents' attributions. In general, a positive bias in favor of the child appears to be the norm: desired behaviors are viewed as internally based and relatively stable, whereas negative ones are seen as externally determined and temporary (see Dix et al., 1986; Goodnow et al., 1984; Knight, 1985; Melson, McVey, & Ladd, 1989). However, this pattern may break down when children are perceived as dispositionally "difficult" (Gretarsson & Gelfand, 1988). "Difficult" child behaviors also seem to influence parents' sense of their own control, leading not only to negative perceptions of the child but to responses that serve to reinforce and maintain such negative behaviors (Bugental & Shennum, 1984). Alternatively, attributions may in some cases help parents *gain* a sense of control over certain untoward outcomes, such as children who have serious medical problems (see Affleck et al., 1982). Although I have not included in this review the literature pertaining to parents of handicapped children, I suspect that it may also show that such characteristics significantly affect the kinds of beliefs (e.g., expectations, attributions, etc.) parents hold.

INTEGRATING PARENTS' BELIEFS: TWO PROPOSED DIMENSIONS

One feature of this area of study is the fragmentation of its constructs (witness the various emphases on values, attitudes, perceptions, expectations, attributions, etc.). Another, often, is their apparent superficiality. In retrospect, for instance, it is a little surprising that any simple beliefs-behavior-child outcomes path of effects was ever expected; and, in fact, beliefs do not significantly relate very consistently to parents' behavior, as this and other reviews (Goodnow, 1988; Miller, 1988; Sigel, 1986) have

pointed out. One theme of this review is that the influence of beliefs is more subtle and complex than such a model would suggest. More basic, integrative conceptualizations of the beliefs themselves, and of the processes contributing to their effects, are needed.

There have recently been some efforts at describing integrative aspects of parental beliefs. For example, Bacon and Ashmore (1986) distinguish an "evaluative" dimension in parents' responses to typical child behaviors. Taking another direction, Palacios (cited in Goodnow & Collins, 1991), using a large Spanish sample, has described three groups of parents ("traditional," "modern," and "paradoxical") on the basis of the structure of their beliefs concerning a wide range of developmental issues.

I suggest that another approach is to differentiate two fundamental dimensions of parental conceptions, one concerning *the child* and his or her role in development, the other concerning *the parent's* role in that development. These belief-dimensions contrast, for example, with narrower emphases on expectations (which seem to be largely normative and/or knowledge based), with attributions for specific child abilities, or with the typically assessed attitudes toward parenting issues such as discipline. However, I want to suggest that they also go beyond trait-like conceptions of parent beliefs, and instead describe fundamental schemas of self and other and their interaction. Although particularized parental cognitions about one or another discrete ability or parent-child encounter (together with situational constraints) may have some importance in predicting how a parent behaves in a specific setting, I suggest that these fundamental perspectives are more instrumental in affecting a broad range of child outcomes.¹

This view is inspired partly by the work of Bugental and her colleagues (Bugental & Shennum, 1984; Bugental et al., 1989). Their approach to attributions is to examine parents' beliefs about the relative amounts of influence or social power children and parents have in interactions. In research with both "normal" and maltreating parents (e.g., Bugental et al., 1989), they have shown that attributions of social power to child and self are independent dimensions that moderate parents' reactions to "difficult" children, and in turn affect how children respond. For example, in response to mothers who attributed more social power to the child, initially *unassertive* children became more assertive, whereas mothers who attributed more social power to themselves were more effective in improving *unresponsive* child behavior. Overall, their results suggest that

¹ I want to emphasize that my suggestion that these two constructs are basic in organizing parents' ideas derives from my reading of a literature that is almost exclusively Western, and predominantly American. Because parental perspectives inhere within cultural belief-systems, I would expect other belief-dimensions to be more important in cultures for which issues of autonomy and attribution of personal influence are less salient.

the optimal pattern for the parent-child interaction is attributions of mutual power (see Bugental & Shennum, 1984).

The Contribution of the Child

The first dimension—the view of the child as a relatively active, autonomous agent in, or at least significant contributor to, the developmental process—is a feature more or less explicit in several theoretical perspectives on parents' beliefs (Applegate et al., 1985; Newberger, 1980; Sameroff & Feil, 1985); moreover, it is implicated in a number of the empirical studies, already cited, reporting significant effects (either on parent behavior or child outcomes) for beliefs (Bearison & Cassel, 1975; Dix et al., 1989; Jennings & Connors, 1989; Johnson & Martin, 1985; McGillicuddy-DeLisi, 1985; Sameroff & Seifer, 1983; Schaefer & Edgerton, 1985; Tulkin & Cohler, 1973).

The Contribution of Parents

The second dimension—referring to conceptions of parental efficacy—has been less frequently included in recent studies of parent beliefs. However, such a dimension also figures prominently in several theoretical frameworks dealing with parental schemas (Bretherton, 1985; Newberger, 1980; Sameroff & Feil, 1985). Moreover, a body of work links such beliefs with parental behavior. For example, Mondell and Tyler (1981) found that more "competent" parents (defined as those who had high levels of self-efficacy, trust of others, and coping skills) provided more indirect help, gave fewer commands, and showed more positive affect in interaction with their children. Such behaviors could, in turn, mediate the relationship between parents' competence and the child's own sense of competence. (Although having a competent child could itself influence parents' perceived self-competence.)

Some studies have looked more specifically at locus of control or self-efficacy with respect to parenting. In a study of low-income mothers (Stevens, 1988), parents' locus of control scores were significant predictors of the quality of children's physical and social home environment. In a larger and more heterogeneous sample, parents' locus of control accounted for significant variance in their Q-sorts of parenting belief statements (Galejs & Pease, 1986). "Internal" mothers (downplaying the role of "fate" in their lives) were more likely to stress affection and verbal interaction in parenting, whereas "externals" (who perceived little personal control) tended to stress provision of good nutrition and educational play materials. Another study reports that middle-class mothers and fathers who expressed more confidence as parents were also more likely to

feel in control of their parenting, and to experience satisfactions that were child rather than self-focused (Frank et al., 1986).

A few other studies have looked at links between parental efficacy and child outcomes. Ladd and Price (1986) examined the relationship between children's competence (actual and self-perceived) and parents' perceptions of the difficulty of their tasks as socializers. Rewording items from Harter's "Perceived Competence Scale for Children (PCSC)" (Harter, 1982), Ladd and Price asked parents to indicate how easy or difficult they found a variety of socialization tasks, such as helping children do well in school, or helping them make friends. Child measures included self-perceptions of cognitive and social abilities, as well as objective assessments of these.

Although the results differed somewhat according to child's age, sex, and competence domain, there were significant relations between parents' perceptions and children's actual performance (r 's in the .50 range for cognitive achievement and in the .30 range for social competence). Specifically, parents of children who had high perceived *and* actual competence in either domain reported significantly lower levels of perceived difficulty than did parents of children who scored low on both types of measures.

The meaning of these relationships is, of course, somewhat ambiguous. On the one hand, parents who see socialization tasks as difficult may in fact perform them less well, or may even avoid them if possible, diminishing their support of the child's competence. On the other hand, such perceptions may themselves be influenced by children's actual abilities; if a child seems to acquire competence independently or with little effort, parents are apt to perceive their task as relatively easy. In addition, parents' perceptions of task difficulty may reflect the level of confidence they feel as parents. Of course, these effects are not necessarily mutually exclusive.

Findings from a study by Tower (1980) are also of interest here, though the research appears to have some important methodological shortcomings. Using an adjective checklist, Tower assessed the "positive self-concepts" (valued aspects of the self) of a group of parents of preschoolers. Child measures included IQ test performance, imaginativeness, and ratings of preschool play behavior. Parents' scores, categorized by factor analysis, were significant predictors in regression equations for 10 of the 15 child measures. The most influential parental factor was one contrasting emphasis on interpersonal relationships with importance placed on personal growth and autonomy. Contributing somewhat less influence was a factor contrasting rationality and practicality with warmth and idealism. There were also significant differences in the results according to

sex of both child and parent. Tower proposed that these parental beliefs instrumentally affect their interactions with children, thus accounting for the relationship between their "value orientations" and children's behavior, even when that behavior occurs in a setting removed from parents.

However, problems with this study exist on both sides of the prediction equation. The use of factor analysis on a measure consisting of only 30 items is questionable, and the reported metrics for internal reliability of each factor seem insufficient to justify their identification as distinct. Moreover, the coding of naturalistic observations seems suspect for "halo effects."

It would be worthwhile to reproduce such a study using more careful procedures. To further explore this dimension of parental beliefs, psychometrically valid instruments are essential; one published candidate is a locus of control measure designed specifically for use with parents (Campis, Lyman, & Prentice-Dunn, 1986), but which appears to have seen little use outside of clinical applications.

In any case, the reciprocal nature of the parent-child relationship seems to call for measures of parental perceptions concerning each of the partners to it. One promising research approach already alluded to here links child outcomes with parents' representations (internal models) of their own relationship history. A compelling representative of this perspective is Crowell and Feldman's (1988) study of interactions between mothers and their preschool children. Some of the children were clinic referred for developmental delays and/or behavior problems, and the child's clinic status was a significant predictor of the behavior of both mother and child. However, also contributing to the child's behavior, and *independent of the mother's behavior*, was her interpretation of *her own* childhood experience, as assessed through the "Adult Attachment Interview" (George, Kaplan, & Main, 1984).

Mothers rated "secure" on the interview had positive evaluations of their attachments with parents and had adopted a coherent, resolved perspective on their experience, even when it had included significant negative events or unhappy feelings. Descriptions of attachments given by mothers in the "insecure" group were often confusing or inconsistent, in both form and content, and indicated ongoing anger or other unresolved feelings. In the lab situation, the "insecure" mothers were less helpful and supportive with their children, and were judged to be either "distant" or conflicted and inconsistent in interaction with the child. As for the child, "in comparison to the secure group, children of mothers classified as insecure were less affectionate, more negative and avoidant, more controlling and anxious, and showed more subdued and angry affect" (Crowell & Feldman, 1988, p. 1279). Parents had, in effect, repro-

duced in their current interactions with children some of the meaning they had created from *their own* childhood experiences.

ADDITIONAL CHALLENGES FOR RESEARCH

In addition to broader and more integrative conceptualizations of parents' beliefs are other issues that warrant attention and clarification in the research. One is the problem of designing appropriate measures of beliefs. Another is a need to describe more convincingly the *independent* contributions (if any) parental beliefs make to child outcomes. Another is to give more attention to how affective variables mediate the child's perceptions of parents' beliefs.

Assessing Beliefs

Apart from the conceptual problems inherent in isolating from correlational data effects of beliefs, behavior, and child characteristics, findings in this literature must be evaluated cautiously, because the validity of the belief measures used is often suspect. Not only are such measures signal candidates for response biases influenced by social desirability, they may also assess beliefs the significance of which is (at best) superficial and (at worst) irrelevant to the actual parent-child relationship, or even to the parent's own cognitive framework. For instance, if parents are asked to estimate ages at which children acquire various cognitive abilities, they may simply approach it as a task of ordering concepts by level of difficulty (see Miller et al., 1980).

Holden and Edwards' (1989) review of parental attitude instruments used over the last 75 years provides a sobering look at the typical paper-and-pencil surveys used to assess a variety of parental beliefs. Indeed, one major problem Holden and Edwards identify is that often a single instrument attempts to measure (without distinguishing among them) conceptually distinct classes of responses, including attitudes, beliefs, values, behavioral intentions, and self-perceptions. It would be useful, they suggest, to treat these types separately, because it may be that they influence behavior in different ways, and to differing degrees. Furthermore, the wording of many of these instruments is ambiguous, often not specifying the age of the child concerned, or switching between references to the respondent's own child or parenting beliefs, and children or beliefs in general. In conventional psychometric terms, their reliability and validity are either untested or demonstrably marginal. Finally, argue Holden and Edwards, such surveys rest on unrealistic assumptions about the nature of parental attitudes—that they are coherent, consistent, and stable aspects of social cognition.

I have tried to suggest that there may indeed be some validity to

broadly conceived parental perspectives, although I would agree that attitude surveys are generally inadequate to assess them. Fortunately, there have been studies that elude these problems, or at least some of them. For example, some employ open-ended interviews, which are more likely than are preselected probes to reveal parents' natural vocabularies and heuristic categories of thinking about children (Applegate et al., 1985; Bacon & Ashmore, 1986; McGillicuddy-DeLisi, 1982, 1985; Sigel, 1986). Others move beyond attitudes to focus on attributions for children's or parents' behavior (Dix et al., 1989; Gretarsson & Gelfand, 1988; Ladd & Price, 1986; Melson et al., 1989), or on concrete (and realistic) parental problem solving (Holden, 1988, 1989). Still other research programs, as I have shown, conceptualize parent beliefs as fundamental ways of conceiving the relationship between child, parent, and environment (Bugental & Shennum, 1984; Crowell & Feldman, 1988; Newberger, 1980; Sameroff & Feil, 1985), or focus explicitly on parents' view of their own role (Frank et al., 1986; Mondell & Tyler, 1981; Tower, 1980). These represent encouraging alternatives for arriving at belief-constructs that are both heuristically productive and psychologically meaningful.

Describing Independent Effects for Beliefs

Some suggestions relevant to clarifying when beliefs are likely to influence child outcomes have already been made; here I mention a few more. There are several strategies that might identify the independent contributions of beliefs, but they have been used so far in only a small number of studies. One is to observe parents' behavior with children who are not their own (cf. the work of Bugental and her colleagues, 1984, 1989). The other is to alter parents' beliefs experimentally and see if there are associated changes in the child. I have been unable to find published studies where parents' beliefs have been experimentally manipulated, though education in child development and parenting is often a component of parent-training efforts (cf. Field et al., 1980). Parent-intervention studies have been reported more often by practitioners than by researchers, and typically focus on behaviors, not beliefs. Where there are attempts to alter parent knowledge or perceptions, it would be important to measure preexisting beliefs, as well as to include child variables as outcome measures. As far as I know, this has not been done. In the absence of this kind of work, we are left with associations susceptible to multiple interpretations.

Closing Gaps in the Model

Finally, there is a need in this research to address some of the more neglected aspects of the model I propose here. For one, we know little about how parents' beliefs influence the affective quality of their relation-

ship with the child (though, see the work of Dix and his colleagues, 1985, 1986), and even less about how affective factors influence the child's incorporation of parental perceptions. Goodnow and Collins (1991) treat affect as it may mediate both beliefs and behavior, *for parents*, but not with how the *child's* experienced affect in the relationship may influence his or her perceptions of those beliefs. Surely, affective-relational variables must mediate such processes—yet they seem to have received little attention in this context (though, see Furstenberg, 1971). Here is an area of opportunity for collaboration among developmentalists who study cognition, emotion, and their interaction. Indeed, greater specification of the factors that influence the child's *perception* of parents' beliefs is needed in general. One aim of this review has been to focus more attention on models of process; these need now to be tested through empirical work.

By now parent beliefs have been shown to constitute an important part of the social landscape for children. Particularly in their earliest years, children are in some ways created in the images held by their parents, images that overlap considerably with those of the wider cultural context, but which are given special significance when refracted in the parental relationship. Thus, besides informing our models of socialization, or understanding of parents' beliefs may even offer assistance to families themselves.

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