Socioemotional Development: Enduring Issues and New Challenges

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This article reviews current trends and forecasts future advances in the study of socioemotional development, with special attention to the challenges inherent in studying socioemotional functioning in relation to allied advances in cognition and self- and other-understanding, in considering the importance of the ecological context of developmental processes, and in thoughtfully applying insights from social and personality development to policy problems concerning children and their families. The topics receiving special concern in this survey include changing views of emotional development and emerging interest in emotional regulation, new perspectives on classic questions of temperament, continuing research challenges in the study of attachment (including the nature of internal representations of attachment, developmental changes in attachment processes in relation to other aspects of parent–child relationships, and problems in mapping continuity and change), a reexamination of the nature of parenting influences on offspring, and new concern with understanding the physicosocial ecology of human development. © 1993 Academic Press, Inc.

At the beginning of the 1980s, Sroufe (1979) used the title "Socioemotional Development" to summarize emergent themes in attachment, emotional development, and psychosocial functioning for the *Handbook of Infant Development*. A decade later, the field was summarized in an entire volume with the same title from the Nebraska Symposium on Motivation (Thompson, 1990a) and had blossomed to encompass a far more diverse array of concepts, theories, and developmental issues while retaining continuity with some of the themes Sroufe provocatively articulated a decade earlier. The most confident prediction one can offer about the future is that research on socioemotional processes will continue at a lively pace.

The field of socioemotional development is enlivened by its longstanding links to the concerns of child–clinical psychologists and (more recently) developmental psychopathologists, as well as by its relevance to

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public policy issues concerning child welfare and family functioning. Af-
ter all, issues concerning attachment, emotional well-being, and the qual-
ity of parent–child relationships are central to the challenges associated
with many developmental disorders as well as to concerns about the
effects of single parenting, day care, and divorce on children. These are
valuable catalysts for a young research field, although they pose risks that
this still limited research literature will produce premature and often in-
appropriate intervention applications. Thus in many respects, the inter-
face between research and intervention helps to define some of the chal-
lenges for the study of socioemotional development in the decade to
come. A second challenge is more effectively integrating the insights of
research on social, personality, and emotional development with our
knowledge of allied advances in cognitive functioning and the growth of
self- and other-understanding with which socioemotional functioning is
intimately related. Finally, researchers are developing a stronger appre-
ciation of the importance of the changing ecology of human development
and its implications for socioemotional behavior that remains a strong
necessity for future work in this area. These themes will be illustrated in
the research review, and forecast, that follows.

Prognostication of future trends in so broad a scholarly area is two parts
forecasting, two parts wishful thinking, and one part guess, but several
emergent themes of the 1980s offer the most provocative and potentially
valuable future directions for research on socioemotional development.
Those I will consider in this short article are reformulations of the nature
of socioemotional development (with relevance also to the study of tem-
perament), continuing debate over attachment and the construction of
relationships, a reexamination of the nature of parenting and its influences
on offspring, and growing attention to the physicosocial ecology of human
development.

EMOTIONAL DEVELOPMENT

In many respects, the most noteworthy research advance of the 1980s
was the emergence of emotion as a central topic of developmental study.
Contrary to more traditional formulations that emphasize the disorganiz-
ing character of emotional arousal, or classic developmental portrayals of
emotion as an epiphenomenon of biomaturational, cognitive, or social
accomplishments, research in the last decade has underscored emotion as
a "main effect" in organized, competent behavioral functioning from an
early age. Although emotional arousal retains the capacity to disorganize
or undermine adaptive behavior (hence the current interest in emotional
regulation), the enlistment of emotion into behavioral competency has
enlivened the developmental study of emotion in recent years. As a con-
sequence, researchers have begun to elucidate the role of emotion in the

dynamics of parent–infant interaction, temperamental individuality, understanding of self and other people, sociability with peers, prosocial initiatives, and even memory retrieval (cf. Fagan, Ohr, Fleckenstein, & Ribner, 1985). Studies of the effects of maternal prosody (Fernald, 1991) and social referencing (Campos & Stenberg, 1981) have shown, in turn, the salience and significance of emotional signals to the regulation of behavior in infancy, as studies of the effects of the background home emotional climate have similarly demonstrated with children (Cummings, 1987), and research on peer communications has likewise shown with adolescents (Gottman & Mettetal, 1986). Taken together, the study of *socio*emotional development of the late 1970s has become the study of socio*emotional* development of the 1980s and 1990s.

The Emergence of Functionalist Views of Emotional Development

But far more has occurred than merely an added emphasis on emotive processes. More fundamentally, models of the nature of emotion and of its behavioral influences have evolved from a prevalent emphasis on structural portrayals of emotion to a growing interest in functionalist views that offer much different theoretical and methodological perspectives. Although structural and functional views of emotional development share much in common, they differ importantly in the research directions and methodological strategies they endorse.

For most of the past two decades, structural views of emotion have guided developmental study because they have provided a useful framework for guiding inquiry into emotional ontogenesis. By portraying emotions as discrete, coherent constellations of physiological, subjective, and expressive activity that are deeply rooted in human evolutionary biology, structural views have oriented developmental research to focus on differentiated basic emotions (e.g., anger, fear, joy, sadness, etc.) and the developmental catalysts for their emergence and elicitation (cf. Izard, 1991; Izard & Malatesta, 1987; Lewis & Michalson, 1983). Biological constraints are believed to define the underlying organizational patterns of emotional behavior, but within these constraints there are important developmental changes in how discrete emotions become associated with unique expressive patterns, behavioral consequences, and even cognitive correlates. Research on these issues has been aided enormously by the generation of highly detailed, microanalytic systems for coding facial expressions of emotion [e.g., Izard's MAX and AFFEX systems and, more recently, Oster's Baby FACS (Oster & Rosenstein, in press)], consistent with the structuralist view that these expressions not only index but also contribute to ambient emotional state, especially in young children prior to the socialization of cultural display rules. Consequently, developmen-

tal researchers have come to rely on detailed coding of facial behavior as a valid index of emotional arousal.

Confidence in structural accounts of emotional development has waned somewhat in recent years, however, for several reasons. First, a number of theorists have questioned whether emotional experience, expression, and arousal patterns cohere as consistently as structural accounts suggest. In a trenchant recent critique, for example, Ortony and Turner (1990) queried, "what's basic about basic emotions?", and concluded that the concept lacks definitional integrity and that basic emotions cannot necessarily be viewed as either biologically primary or physiologically or expressively distinctive. Consistent with this, a second challenge has come from developmental investigators who have questioned the reliability of facial expressions as indices of emotional experience in young children. Camras (1988, in press), for example, used FACS, MAX, and AFFEX codes to evaluate the facial expressions of her young daughter, Justine, in different eliciting conditions and reported that Justine exhibited discrete facial emotional expressions in incongruous circumstances: showing disgust after a yawn or when stretching, for example, or surprise while staring at the soft light of a ceiling lamp, or alternating anger, distress, and fear expressions when crying. Various differentiated facial expressions may not reliably index underlying emotional state, Camras concluded, partly because distinctions between discrete facial expressions of emotion often rely on very subtle morphological changes (e.g., eye opening distinguishing AFFEX codes for "anger" and "distress–pain") and partly because infant emotional experience may not be organized so discretely. Third, in adults as well as children the modal quality of emotional experience seems not to be a succession of discrete emotions, but rather subtly nuanced blends of a broad variety of emotional states that range in dynamic and temporal quality (Thompson, 1990b)— aspects of emotion that are not well reflected in most structural accounts.

Another important challenge to structural views comes from functionalist theorists, who argue that the quality of emotional experience is defined not by biologically based constellations of expression and arousal, but rather by the organism's ongoing transactions with the environment (Barrett & Campos, 1987; Campos, Campos, & Barrett, 1989; Frijda, 1986). Functionalist theorists portray emotions as being centrally constituted in relation to an organism's goals and their attainment and are defined as "processes of establishing, maintaining, or disrupting the relations between the person and the internal or external environment, when such relations are significant to the individual" (Campos et al., 1989, p. 395). Although these theorists use the emotions terms of structuralists, they commonly speak of emotion "families" in a Roschian sense (cf. Rosch, 1978) that are united by common patterns of organism–

environment relations and action tendencies (cf. Barrett & Campos, 1987). This view thus stresses the regulatory and motivational qualities of emotional experience, the management of emotional arousal to accomplish strategic ends, the importance of emotional expressions as social signals, the social construction of emotional experience, and the bidirectional relations between appraisal processes and emotional arousal.

[In a more radical departure from structuralist assumptions, dynamic systems theorists like Camras (in press) and Fogel (Fogel, Nwokah, Dedo, Messinger, Dickson, Matusov, & Holt, 1992) argue that emotions do not exist as structured wholes at all but are proximally defined by the immediately evolving demands of the context (intraorganismic and extraorganismic) to which the individual is responding. Dynamic self-organizing emotional reactions "recruit" different action tendencies, expressive features, and appraisals as the context requires. From this view, there are potentially infinitely different varieties of emotional experience and expression.]

The emergence of functionalist views within developmental emotions research has had several important contributions. First, it has renewed attention to the socialization of emotional experience as an important constituent of emotional development. Social agents shape emotional development not only through processes of selective reinforcement and modeling but also through discourse that defines and channels a child's emotional experience, by regulating the contexts in which emotional arousal can occur and by actively instructing and coaching children about permitted and prohibited emotional experience and rewarding their emotional self-control (cf. Miller & Sperry, 1987). Consequently, children acquire a greater "emotional competence" (Saarni, 1990) in their culture by interpreting and managing emotional experience in culture-specific ways. Second, a renewed emphasis on individual differences in emotional experience has emerged from functionalist attention to the interaction of emotion, appraisal, and action tendencies, and this has fostered interest in topics ranging from individual differences in attachment and the "emotional biases" they reflect (Malatesta, 1990; Thompson, 1990b) to the emotional dimensions of differences in peer competence (Dodge, 1991). Third, and finally, functionalist views have also contributed to an expansion of the domain of emotional development research to include the so-called "secondary emotions," especially self-referent emotions like shame, guilt, embarrassment, pride, and other reactions that emerge from growing self-understanding, contextual incentives, and advances in social cognition.

However, functionalist views of the development of emotion also pose potentially problematic challenges for developmental researchers. One concerns the breadth with which emotion is defined (an even greater

problem, incidentally, for dynamic systems theorists): by defining emotions as being related to the "significant" interests of the individual and by relating emotional arousal to broadly defined adaptive purposes, the functionalist portrayal of emotion seems unduly expansive (encompassing, it would seem, most of human motivation, including processes related to hunger, thirst, and sexuality). It remains to be seen whether a more refined conceptualization of emotion is forthcoming—or necessary—to advance this theoretical view. Furthermore, another historically recurrent problem with functionalist views within psychology has been circularity in reasoning: behavior has been "explained" with reference to a goal structure that is often assumed by the nature of the behavior it explains. Especially when functionalist views are applied to the study of early emotional behavior, assumptions concerning goals and their emotional consequences can be easily inferred but are not easily validated.

A third challenge concerns the measurement of emotion. Within structuralist views, researchers could rely on detailed measures of facial expressions with considerable confidence in their validity, since these expressions were believed to be fundamentally linked to constellations of affect and arousal. Functionalists eschew this view and argue instead that such "emotional signals" are context-specific and shaped by the immediate goals of organism–environment relations. This means that developmental emotions researchers must reexamine the methodological assumptions underlying their work and perhaps consider using multimodal assessments of emotional arousal in which facial, vocal, and other behavioral signals are viewed in terms of their functional relations to the contextual goals in which emotion is expressed (akin to how, for example, attachment researchers regard an infant's diverse attachment behaviors as functionally equivalent strategies for achieving goals related to proximity- and contact-seeking).

An alternative methodology is for researchers to take seriously the view that emotional expressions are social signals and to measure emotion as it is subjectively preceived by others rather than objectively indexed in facial or vocal behavior. In other words, in many research contexts it may be more important to know how others regard the target's emotional experience—and respond to it—than whether those perceptions are veridical with the target's actual feelings. Consider, for example, interpretations of a baby's cry. A lively research literature has emerged to show that caregivers subjectively interpret the cry based on circumstantial cues rather than cues inherent in the sound of the cry itself. Although there are reasons for reappraising this conclusion (Thompson & Leger, in press), this research nevertheless neglects the fact that caregiver interpretations of baby cries affect caregiver responsiveness which socialize, in turn, the cry as an expressive behavior. Infants may acquire a more

distinctive expressive repertoire based, in part, on how their earlier ex-
pressions have been interpreted by significant people. In this regard, it is
less important to know whether those people are "right" than to under-
stand how their inferences, and the responses that arise from these infer-
ences, affect the further development of socioemotional signals.

Emotion and Emotional Regulation

Another emergent theme in developmental emotions research is emo-
tional regulation and its developmental constituents and consequences
(Eisenberg & Fabes, in press; Garber & Dodge, 1991; Thompson, 1990b,
1993a). Emotional regulatory processes are fully consistent with function-
alist views of emotion, but they are also harmonious with structural as-
sumptions. In a sense, students of emotional development have moved
beyond the realization that emotions are biologically adaptive to the
awareness that emotional responses must also be flexible (rather than
stereotypical), situationally responsive (rather than rigid), performance-
enhancing (rather than over- or underarousing), and must change quickly
and efficiently to changing conditions if they are to support organized,
constructive functioning in higher organisms. And this is where emotional
regulatory processes often enter in.

As a consequence, emotional development is being reconceptualized to
include the emergent capacities for emotional management that accom-
pany neurophysiological maturation, the growth of cognition and lan-
guage, and the development of emotional and self-understanding (Thomp-
son, 1990b). Whereas the newborn infant may cry uncontrollably, the
toddler can seek assistance from others, the preschooler can reflect upon
and talk about her feelings, the school-age child can redirect attention and
use other deliberate strategies to reduce distress or anxiety, the adoles-
cent has sufficient self-understanding to evoke more idiosyncratic self-
regulatory strategies, and the adult might invoke strategies for managing
anger that are different from anxiety-reduction efforts and alter her sched-
ule and ecology to create manageable emotional demands. Individual dif-
ferences in a number of development processes are also undergoing re-
examination from an emotional regulation perspective. The nature of in-
dividual differences in attachment and its socioemotional correlates, the
origins of behavioral inhibition, the attributional processes of aggressive
children, the propensity of some children to show prosocial and helpful
behavior, the self-referent beliefs of depressed children, and the emo-
tional behavior of the offspring of parents with affective disorders illus-
trate several in the variety of developmental processes that are being
explored with respect to differences in emotional regulation (see Eisen-
berg & Fabes, in press; Garber & Dodge, 1991; Thompson, 1990b).

As is often true with the quick emergence of professional interest in a

topic, there remain a number of basic challenges to unfolding the provocative construct of "emotional regulation." The first is defining what we mean by this term: it is surprisingly easy to read development studies of emotional regulation (including my own) that lack a clear definition of the concept under study. Underscoring the need for greater conceptual clarity is the fact that current researchers seem to differ, at least implicitly, on a number of important definitional issues. First, does emotional regulation pertain exclusively to the inhibition of emotional reactions, or does it include also the maintenance or enhancement of emotional arousal? In a culture that emphasizes emotional self-control, development researchers are most often interested in how children and adolescents learn to subdue unpleasant arousal, but strategies of emotional management might also be enlisted to heighten emotional experience, such as when children intensify their anger to stand up to a feared bully (see Miller & Sperry, 1987) or reenact pleasant or humorous experiences. Second, is emotional regulation primarily a matter of emotional *self*-management, or does it include the regulation of emotion by others? Early in life, emotional regulation often occurs through the intervention of caregivers, but in later years people also regulate the emotional experience of others by offering social support or therapy, altering secondary appraisal processes, or directly reducing life demands. These extrinsic regulatory efforts often accompany, of course, the individual's personal efforts to emotionally self-regulate. Third, does emotional regulation typically alter the discrete emotion one experiences, or rather its intensity, speed of onset, persistence, or other dynamic feature? Even though feelings of, say, anger or fear may continue to "play the tune" of a person's emotional experience, regulatory processes may nevertheless so significantly alter its dynamics that the fundamental character of the emotional reaction itself is changed.

These definitional issues require considerable attention, not just so researchers can speak with common underlying assumptions, but also to better distinguish "emotional regulation" from related processes like display rules or defense mechanisms and to better identify and study its constituents. My own definition of emotional regulation—as "the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals"—answers some of these definitional questions but risks being overinclusive, which is why it is offered here as only a provisional proposal.

A second challenge to unfolding the construct of emotional regulation is to clarify the nature and origins of individual differences in emotional regulatory capacities. It was perhaps inevitable that developmental study would advance quickly from normative and descriptive analyses to a prescriptive evaluation of individual differences, because the topic of

emotional regulation is naturally relevant to a variety of clinical and applied issues. But there is reason for concern that this leap has perhaps occurred too quickly. One reason is that we do not yet have a normative account of developmental changes in skills of emotional management upon which to build evaluations of individual differences in these skills. Do age-related changes in emotional regulation derive from children's developing awareness of the need for emotional self-control? From a growing repertoire of strategies for managing emotions (if so, which ones?)? From enhanced social–cognitive awareness of the social benefits and situational demands for regulated emotion? From developing flexibility in adapting different regulatory skills to different situations? From an enhanced ability to predict the likely success of alternative regulatory approaches? From any combination of these constituents? As these questions suggest, "emotional regulation" is probably not a homogeneous process in which individuals are either skilled or incompetent, but rather a conceptual rubric for a broad variety of loosely connected capabilities that likely have different developmental timetables and experiential origins. Charting their development requires examining the growth of emotional regulation in the context of allied achievements in cognition, language, and self-understanding. Until a better normative analysis of the development of emotional regulation emerges from research on this topic, it will be difficult to evaluate and (potentially) remediate individual differences in emotional self-control.

In addition, it is necessary to specify more clearly what we mean by adaptive or "optimal" emotional regulation that is, presumably, the standard for evaluating individual differences in skills of emotional management (earlier in the history of developmental psychology, similar problems attended defining "optimal" ego control and other constructs). In a sense, "optimal" emotional management can be defined either as an *outcome* (e.g., emotional self-control sufficient to foster interpersonal relatedness, prosocial initiatives, appropriate assertiveness, etc.) or as a *process* (e.g., emotional self-control that permits situational flexibility, goal-directedness, and hedonic well-being in one's emotional experience). Emotional "dysregulation" might be conceived as the absence of these characteristics. Unfortunately, some current approaches not only mingle outcome and process considerations but also conceive "optimal emotional regulation" so broadly and transcontextually that it becomes confounded with intuitive values of what a well-functioning personality is like. This is problematic not only because it lacks conceptual clarity, but also because it presumes answers to certain fundamental questions, such as whether the nature of "optimal" emotional regulation might be better defined by the demands of the immediate context than by general individual attributes (Thompson, 1993a). Taken together, it is wise to move

cautiously in advancing the construct of emotional regulation to the evaluation and remediation of individual differences in socioemotional functioning lest our intuitions about how emotional regulation is defined will substitute for basic research on this topic.

The third challenge to unfolding the construct of emotional regulation is methodological. Studying the development of emotional regulation requires new methods of studying emotional development. If it is true that differences in emotional self-control are likely to be reflected in the temporal and intensive features of emotional responding—in the intensity, speed of onset, rise time, persistence, recovery, lability, and range of responses, for example—then researchers must develop new assessments of these "emotional dynamics" (Thompson, 1990b, 1993b). Such assessments should not rely exclusively on dynamic changes in microanalytically coded facial expressions since these are multidetermined, but should instead include multimethod assessments of facial, vocal, and behavioral activity that are functionally related to the eliciting conditions under study. There currently exist several empirical models of this kind of research strategy, and more are currently in progress.

Taken together, these conceptual and methodological issues are weighty challenges to students of emotional development. But being able to articulate them as challenges at this time underscores how much excitement has accompanied the emergence of emotions as a central topic of developmental study in the 1980s—and in the decade to come.

A Note About Temperament

As the study of temperament was reemerging the 1970s it would have been inappropriate to include temperament at the conclusion of a discussion of emotional development, since many of the prevailing temperamental dimensions—including activity level, adaptability, and distractability—were not conceived primarily in emotional terms. But another indication of the growing recognition that emotion assumes adaptive roles in behavior is the current preeminence of emotional constructs in temperamental theory. Whether one is concerned with differences in proneness to anger, fear, or positive emotionality (cf. Goldsmith & Campos, 1982), variations in behavioral inhibition, or enduring issues concerning the origins of temperamental difficulty, temperamental individuality is being viewed in the context of enduring emotionally based dispositions, and this alters how temperamental questions are posed and addressed.

As one reflection of this changing mode of inquiry in temperamental research, it is no longer acceptable now to simply append a parent-report temperament measure to a study designed for other purposes to ask "what is the temperamental contribution to . . ." the dependent measure. Instead, researchers are posing much more sophisticated questions that

test specific predictions concerning the potential role of temperamental characteristics in behavioral development: how particular temperamental attributes in a child mediate the effects of specific parental child-rearing practices, for example, or how temperamental individuality has predictably differential sequelae for boys and girls. Even more elegantly designed investigations are asking whether different *constellations* of temperamental features in a child have predictable outcomes when compared with other temperamental constellations. Framed in the context of more carefully designed hypothesis-testing studies, in other words, current and future research on temperament will yield a far more interpretable literature than has often been true in the past, because it will be based on predictions derived from our knowledge of how emotionally based dispositions in children affect their constructions of social experiences and responses to them.

Another reason why researchers can no longer merely add a parent-report temperament measure to their preexisting research design is that the technology of temperamental study has developed considerably during the past decade. Spurred partly by doubts over the validity of parent-report measures, researchers have supplemented their methodological strategies in at least three ways. First, psychophysiological measures like heart rate, cortisol secretion, electrical activity in the brain, and other indices are more commonly used as convergent measures of temperamentally based (especially emotionally based) individuality. Interpreted in concert with behavioral measures and observational reports, they are contributing to a better understanding of the biological substrate that has always been presumed to be part of temperamental characteristics. Second, more sophisticated behavioral genetics research—together with independent insights from the field of molecular genetics—is contributing to dramatic advances in our appreciation of the heritability of individual characteristics and the processes leading to phenotypical individuality and its (developmental as well as environmental) malleability. Finally, researchers are beginning, at last, to benefit from concerted efforts during the past decade to devise systematic behaviorally based laboratory assessments of temperament, most notably the Laboratory Temperament Assessment Battery by Goldsmith and Rothbart. Temperamental assessment is, in other words, moving beyond simple parent-report measures to become more sophisticated and multifaceted.

These advances promise to move temperamental research out of its traditional ties to philosophical constitutionalism to a view of the biological bases of individuality that can be integrated with, and advance, mainstream developmental theory. But these advances also may threaten the integrity of the temperamental construct itself by calling into question what temperament is. For example, researchers are already discovering

that the associations between temperamental individuality and variability in biological functioning are considerably more complex than expected. As Gunnar's insightful work on the cortisol response has shown, for example, cortisol secretion does not conveniently map onto individual differences in proneness to fear, and developmental as well as environmental demands assume an important role in the interpretation of the cortisol response in young children (e.g., Gunnar, Marvinney, Isensee, & Fisch, 1992). It may be necessary to substantially revise our conceptual taxonomy of temperamental constructs to accord with biologically based dimensions of individuality that are revealed in studies to come. Moreover, future research may also call into question some of the defining features of temperament. Heritability does not necessarily mean that individual characteristics will endure over developmental time. Nor does a biological basis for behavioral individuality assume temporal consistency: as Kagan (1992) has noted, almost one-third of the children who showed characteristics of behavioral inhibition in the second year were not shy or fearful in the fourth year, and another 20% of the children with the opposite profile in the early years were shy at age 4. Different measures of temperament may each show temporal stability but show limited interrelationships. In other words, temperamentally based phenotypes—even those with demonstrable biological or genetic substrates—change over time, and an examination of reasons for these changes is an important agenda for future studies.

Research on these issues promises exciting advances in temperamental theory and research as developmentalists explore more carefully and systematically the place of "temperament" (as it is traditionally defined or within a renewed conceptualization) in the stream of behavioral development. The result will likely be a substantially revised portrayal of temperament 10 years from now.

ATTACHMENT AND THE CONSTRUCTION OF RELATIONSHIPS

Another theme of socioemotional research for the coming decade bears considerably greater continuity with the prevalent research interests of the 1980s. For many reasons, attachment theory continues to captivate developmental researchers and theorists.

Attachment theory is compelling because it articulates, and seeks to study, answers to questions of longstanding interest to developmental psychologists. How important are early experiences for later socioemotional functioning? To what extent do relationships in infancy color later social relatedness—and why? What are the origins of continuity and change in individual personality throughout life? How might childhood experiences of caregiving shape an adult's parenting capacity? These

questions have long been posed by developmental theorists (many from neo-analytic perspectives), but what has given added weight to their recent reexamination within attachment theory has been the development of empirical methods with demonstrated validity and easy utility for studying them. The Strange Situation procedure has been the normative measure of the security of attachment in infancy for so long that the index and the construct are inextricably linked, and the more recent development of measures for assessing attachment security at later ages—such as the Attachment Q-set (Waters & Deane, 1985) and a laboratory assessment for 6-year-olds (Cassidy, 1988; Main & Cassidy, 1988)—has significantly expanded the developmental scope of attachment research. This catalytic combination of theory and methodology has provided developmental psychologists with the capacity to investigate issues of longstanding theoretical importance with validated empirical tools that are readily accessible to researchers.

The 1980s witnessed many advances in attachment theory and research. Longitudinal studies of the origins, stability, and consequences of individual differences in the security of attachment broadened in scope and sophistication. Cross-cultural examinations of attachment revealed considerable diversity as well as consistency in attachment processes within diverse societies (Van IJzendoom & Kroonenberg, 1988). A new Strange Situation classification ("D" for "disorganized" or "disoriented") was inductively "discovered" and awaits validation (Main & Solomon, 1986). Meanwhile, the developmental scope of attachment research expanded to include parental representations of childhood care and its links to infant–parent attachment (Main & Goldwyn, in press; Main, Kaplan, & Cassidy, 1985), as well as attachment functioning in the preschool (Greenberg, Cicchetti, & Cummings, 1990) and school-age years (Cassidy, 1988; Main & Cassidy, 1988). Theoretically, attachment has been reconceptualized to include the representational systems of child and adult years (Bretherton, 1990), and its potential clinical implications have become appreciated (Belsky & Nezworski, 1988). Attachment theory and research have also been applied to the debate over infant day-care (Belsky, 1988), child placement decisions (Waters & Noyes, 1983–1984), and a variety of other public policy concerns.

Within this decade of impressive advances, 1985 was a turning point. That year, two important volumes were published that offered radically different perspectives on the state of the field and future directions for research. *Infant–Mother Attachment* (Lamb, Thompson, Gardner, & Charnov, 1985) took a retrospective look at attachment research and concluded that many of the most widely accepted tenets of attachment theory had insufficient empirical support. Lamb and his colleagues argued that (a) broad associations between maternal sensitivity and secure at-

tachment were empirically supported, but it was difficult to know more specifically the features of early care that predicted attachment security or alternative insecure attachments, (b) different studies reported widely different estimates of the stability of attachment over short spans of time, suggesting that stability should not be assumed but may be related to consistency in a child's caregiving circumstances, and (c) the prediction of later behavior from infant attachment status was obscured by inconsistent research findings and uncertainty about whether prediction was due to the child's emergent personality functioning or because of consistency over time in caregiving influences—and these alternative explanations had importantly different theoretical implications. Lamb and his colleagues urged more conscientious—and methodologically more sophisticated—examination of these topics. By and large, research since 1985 has elucidated many of these issues, but clarity remains lacking because most studies still employ designs in which Strange Situation assessments at time *a* are associated with antecedents or consequents at time *b* without efforts to explore mediating variables that might influence each (e.g., family life stress, quality of parental care, stability of child-care arrangements, etc.). As a consequence, research findings still do not yield a consistent picture of predictable continuity and change in attachment processes over time, and their causes.

The other significant volume published in 1985 took a prospective tack. *Growing Points in Attachment Theory and Research* (Bretherton & Waters, 1985) sought to define issues for future research by inviting chapters from leading scholars on topics such as attachment as a representational system, Q-sort methodology, cross-cultural studies of attachment, temperamental contributions, intergenerational transmission of attachment processes, attachment in maltreated and high-risk samples, and many other issues. In retrospect, these two volumes read as a prospectus for research that was to emerge in the succeeding years, and the issues they raised still define an agenda for attachment theory and research in the future. Three interrelated themes that are most prominent are the concept of internal representations of attachment, the development of attachment in the broader context of parent–child relationships, and conceptualizing continuity and change in attachment processes.

Internal Representations of Attachment

One of the most important conceptual advances has been the portrayal of attachment as a behavioral system of infancy that develops into a representational system in later years (Bretherton, 1990; Main & Goldwyn, in press; Main et al., 1985; Sroufe & Fleeson, 1986). This theoretical advance links the infancy literature to the broader clinical concerns that were the genesis of Bowlby's provocative theoretical formulations more

than 30 years ago, embracing his notion that many adult psychological disorders derive from a legacy of insecure attachment relationships in the form of enduring internal "working models" of self and attachment figures. Moreover, by exploring the representational features of attachment, the developmental study of attachment processes can expand into later years when social expectations and self-referent beliefs assume an important role in social relatedness.

This "move to the level of representation" (cf. Main et al., 1985) has not just had theoretical implications. Methodologically, it has led researchers to use doll-play scenarios and other procedures to examine the attachment-related beliefs of preschoolers (Bretherton, Ridgeway, & Cassidy, 1990), responses to separation and reunion to explore the attachment conceptions of 6-year-olds (Cassidy, 1988; Main & Cassidy, 1988), self-reports and secondary-source methods to elucidate the attachment representations of adolescents (Kobak & Sceery, 1988), and detailed, in-depth interviews to explore adults' representations of attachment and care from their own childhood (Main & Goldwyn, in press). Underlying these efforts is the constructivist view that individuals create and maintain belief systems concerning self and others that form an interpretive filter by which relational experience is evaluated and internalized. Consistent with classic analytic notions (especially from object relations theory), these attachment theorists believe that a history of experiences of secure attachments, especially those beginning early in life, foster internal "working models" that inspire confidence in self and trust in others. Conversely, early insecurity biases self-referent beliefs and expectations for others more negatively, even to the extent of altering memories for early caregiving experiences and unconsciously undermining relational competence and its satisfactions.

These ideas are theoretically provocative, and current efforts to develop methods to study internal representations of attachment in age-appropriate ways promise a fruitful decade of research on these topics. The greatest weakness of this advance, however, is in developmental analysis: we still know very little about the growth of these internal representations of attachment, the extent to which later representations build upon earlier ones, and the long-term consequences of the "working models" generated by attachments in infancy. What is the nature of the "representations" of attachment that emerge from infancy, for example? Do they consist largely of rudimentary social expectations (cf. Lamb, 1981) or self-efficacy beliefs (Ford & Thompson, 1985)? What is their relation to the more characterological self- and other-referent belief systems that lie at the heart of Bowlby's notion of "working models" and of contemporary attachment theoretical interest in "internal representations" of attachment? Do they form a primitive basis for later sophisticated repre-

sentational systems, for example, or are they instead provisional expectations that are substantially reconstructed with the growth of conceptual complexity and cognitive flexibility, as well as new experiences of relatedness? At what period in development do these rudimentary social expectations become consolidated into more enduring representational systems that bias new relational experiences and the interpretation of ongoing social ties? These are important questions because they help to define the earliest constituents of advanced representational systems in the behavioral attachments of infancy and provide a basis for speculating about their broader consequences. Integrating these theoretical views with current empirical knowledge of early conceptual and cognitive development is essential, especially with recent growth in our understanding of children's autobiographical memory (cf. Eder, 1990), their "theories of mind" by which they understand the thoughts and intentions of others (Astington, Harris, & Olson, 1988; Miller & Aloise, 1989), and other elements of early conceptual understanding.

Similar theoretical challenges concern the later development of these representational systems. The literature on self-referent beliefs and social cognition suggests that children's earliest understandings of self and other are simple, concrete, and behavioral in quality, encompassing a positive attributional bias where the self is concerned, and that it is not until the grade-school years that more characterological and dispositional belief systems begin to emerge that reorganize earlier understandings of self and other. Harmonizing this research with theoretical accounts of internal representations and their origins in early attachment relationships is perhaps the most important challenge to this area of attachment research. Failing to do so risks relegating this important domain of inquiry outside of the mainstream of allied literatures on the development of the self-system and of social cognition from which attachment theorists can substantially benefit.

Development of Attachment and Parent–Child Relations

A closely related topic of emerging concern is the development of attachment processes in the context of parent–child relationships beyond infancy. Parents are important to infants as sources of security under stress, of course, and attachment research provides a convincing account of the formative role of "felt security" in early personality development and its longstanding significance. But parents quickly assume multidimensional roles in relation to their children. They are not only sources of security but also salient play partners, teachers, and consultants; they are catalysts for the introduction of new experiences, interests, and competencies; they are reliable sources of love, affirmation, and support; they are mentors; they manage the distribution of resources that are valuable

to the child; they mediate the child's relationships with kin, peers, and other adults; and, in their use of discipline and maturity demands, parents are sometimes frustrators of the child's wishes and desires. When siblings are involved, parents are also mediators, negotiators, and arbitrators. While there is no doubt that security issues remain important throughout life, their preeminence and later role in parent–child relationships is certainly altered as the nature of that relationship changes and becomes more multifaceted and multidimensional. This presents at least two challenges to attachment theorists in conceptualizing the development of attachment processes throughout life. First, how does the importance of security as a definer of the quality of parent–child attachment change with the child's growth and the emergence of other relational needs? Second, how does the importance of parental sensitivity—the sine qua non of a secure attachment in infancy—change in relation to other parenting practices that become important to children with increasing age?

These are important theoretical and research questions, especially because they stretch attachment theory beyond the parameters of Bowlby's and Ainsworth's initial formulations. Moreover, with the interest in representational systems discussed above, and the forthcoming publication of reports from ambitious longitudinal studies of attachment security and its sequelae (conducted at the University of Minnesota and elsewhere), researchers will for the first time in 1990s have an opportunity to examine developmental changes in attachment in relation to other emerging characteristics of parent–child relationships in childhood and adolescence. However, doing so will require thoughtful conceptual and methodological approaches that go beyond the domain of attachment theory, because parent–child and parent–adolescent relationships are far more complex than are parent–infant relationships. It is perhaps a reflection of attachment researchers' collective debt to Bowlby and Ainsworth that when assessing adults' representations of their own experiences of childhood care, or a 6-year-old's relationship to each parent, attachment researchers still rely on many of the basic constructs examined in infancy: perceptions of parental acceptance and sensitivity, reactions to separation and reunion, and feelings of rejection and inaccessibility (Cassidy, 1988; Main & Cassidy, 1988; Main & Goldwyn, in press; Main et al., 1985). While these are probably life-long definers of security in parent–child relationships, is that all there is to their mutual attachment bond and, more generally, to the meaning and quality of their relationship as it is mutually perceived?

In this respect, it is quite surprising that in their examination of parent–child relationships in later years, attachment researchers have failed to benefit from a new generation of research on parenting practices and their effects on children described in the next section. Moreover, other researchers are insightfully examining the development of self-

understanding from infancy to childhood and its links to children's experiences and understandings of the family system (Bretherton & Watson, 1990; Cicchetti & Beeghly, 1990). These emergent literatures from outside attachment theory (together with the cognitive literatures identified earlier in this section) seem self-evidently relevant to issues concerning children's (and adults') internal representations of attachment themes and to the development of attachment processes in relation to other aspects of parent–child relationships throughout life, and hopefully the next decade will see a growing cross-fertilization of ideas and methods between these significant research fields.

Issues of Continuity and Change

Perhaps the most consistently provocative feature of attachment theory and research concerns the stability of individual differences in personality and socioemotional functioning throughout life. Attachment research is most captivating because it appears to confirm longstanding theoretical beliefs concerning the long-term sequelae of early relational influences on sociopersonality functioning and the continuity of individual characteristics from infancy onward, and many current advances in this field will permit developmentalists in the forthcoming decade to explore lawful continuities and changes in behavioral and representational functioning during childhood and adolescence. The challenge for attachment researchers is to devise portrayals of continuity and change that respect the complexity of the psychological processes under study. In the 1980s, it was clear that impressive continuity *could* be demonstrated in psychological processes. In the 1990s and beyond, the question turns to defining the *conditions* in which continuity and change are likely to occur.

Behavioral continuity can derive, of course, from many sources: individual temperament, self-referent beliefs or expectations for others, stability in the environmental circumstances in which one lives, the impact of significant relationships and the expectations they engender, and other sources. Similarly, behavioral continuity can assume many forms. Morphologically similar behavior at different ages may reflect consistent underlying psychological processes (complete continuity) or these processes may be reflected in different behaviors (heterotypic continuity); early influences may constrain, potentiate, or otherwise mediate later behavior; the effects of early experiences may have latent ("sleeper") effects; early influences may become so completely subsumed into later developmental processes (such as relational influences) that their independent effects can no longer be discerned; and many other models can be imagined. These alternative portrayals of the nature and locus of behavioral continuity should be considered working hypotheses to be tested by longitudinal data, with alternative sources and loci of individual continuity systemat-

ically explored in the data rather than theoretically assumed in the interpretation of path coefficients. Knowledge about the associations between infant attachment and later attachment representations, for example, does not explain the basis for this longitudinal connection. Is it in the child (temperament? self-referent beliefs?), parent (consistent patterns of sensitivity or child-rearing practices?), environmental conditions (stability in residence and other life circumstances?), or elsewhere? Similarly, denoting connections between parental representations of childhood care and the security of attachment of their offspring does not identify the intervening processes by which these are associated. From where do parental representations derive? How are representations related to caregiving behavior? How are representations related to other characteristics of parent and/or child? Does the experience of parenting shape representations of one's childhood rather than the reverse? These are researchable questions and in each case, greater information about the conditions of continuity and change in behavior is required to provide empirically substantiated accounts of these developmental processes. Without systematic exploration of sources and loci of continuity, researchers will continue to believe that their theoretical assumptions concerning the nature and origins of behavioral continuities have been substantiated by their empirical findings when, in fact, different interpretations may also apply.

Attachment theory and research will continue to capture the attention of developmental psychologists in the decade to come because these issues are enduring, compelling challenges to a science of human development. What is exciting is the prospect that these longstanding theoretical concerns will continue to receive the empirical attention they deserve.

PARENTING AND THE EFFECTS OF RELATIONSHIPS ON RELATIONSHIPS

The issues I have raised concerning new directions for attachment theory and research are especially pertinent in the context of another hopeful development in socioemotional research. After many years during which the typologies of Baumrind (1971) and Hoffman (1975) seemed to encompass most of our useful knowledge about parenting practices and their consequences for offspring, recent years have witnessed a reexamination of parenting with a focus on the constituent processes of parental influence. Rather than portraying parenting in terms of broad authority styles or constellations of discipline strategies, in other words, researchers have begun unpacking these typologies to examine in greater detail the constituent affective, attributional, and inferential processes by which adults socialize their offspring. Such studies have included, for example, explorations of the belief systems underlying parental reactions to offspring (Dix, Ruble, Grusec, & Nixon, 1986; Goodnow & Collins, 1990), adults'

strategic use of proactive as well as reactive approaches in the socialization of children (Holden & West, 1989; Kuczynski, 1984), and the modification of discipline strategies to concord with parental perceptions of the child's temperamental qualities (Kochanska, 1991). In many ways, research on attachment and its later consequences for children will be illuminated as theorists establish connections between constructs of sensitivity and infant security from the attachment literature and the diverse constituents of parenting and their consequences that are revealed in this research.

As Maccoby (1992) has noted, one prominent feature of these new studies on parenting is a focus on emotion. Although affective exchanges have long been recognized as crucial to infant–parent relationships, and parental warmth or hostility has been an enduring feature of parenting typologies, only recently have researchers systematically examined the role of emotion as an organizer of parent–child interactions. Dix (1991), for example, has noted that parental emotions are powerful accompaniments to child-rearing practices and are activated in the context of causal beliefs concerning a parent's success or failure in achieving specific goals with offspring. Once aroused, however, these emotions bias parental cognitions about their children, motivate adaptive or maladaptive responses to them, enhance or inhibit strategic socialization efforts, and underlie affective communications that influence the reciprocal reactions of offspring. This provocative portrayal is consistent with experimental studies by Cummings (1987) and others that demonstrate the importance of the background emotional signals provided by parents for children's socioemotional functioning, Patterson's (1986) research on the mutually coercive interactions that can characterize some parent–child relationships, and studies demonstrating the detriments of marital stress and discord on child development (Emery, 1982; Katz & Gottman, 1991). Further insight into the emotional dimensions of parent–child relationships has also come from recent studies of parents with affective disorders. As Zahn-Waxler and Kochanska (1990) and Garber and her colleagues (Garber, Braafladt, & Zeman, 1991) have shown, for example, depressed mothers present their offspring with compelling emotional demands accompanied by forceful messages affecting children's interpretations of those demands, resulting in offspring who show signs of their own socioemotional dysfunction by becoming enmeshed in their parent's emotional struggles, unable to effectively regulate their own experience of emotional arousal and vulnerable to depression of their own. Emotion is, in short, a significant organizer of parent–child interactions.

A second important feature of the new parenting literature is an emphasis on how developmentally and ecologically variable are the constituents of good parenting. Research on parenting practices and their effects

has always had a strongly prescriptive quality, but while researchers have identified certain practices—like authoritative parenting—that are trans-contextually beneficial to offspring (at least in terms of the socialization goals endorsed by most parents in this country), they have also increasingly recognized that the benefits of certain practices may vary with the child's developmental capabilities or with the ecological context in which parents and offspring live. Adolescents benefit most from authoritative parenting, for example, that includes a democratic sharing of decision-making responsibility (cf. Steinberg, Elmer, & Mounts, 1989) that would be difficult for much younger children to adaptively exploit. However, even this generalization is limited to particular psychosocial ecologies: it is wise for a stepfather, for example, not to step quickly into an authoritative role in relation to adolescent stepchildren (Hetherington & Clingempeel, 1992), and a certain degree of control and restrictiveness is desirable for the adolescent offspring of single parents (Dornbusch, Carlsmith, Bushwall, Ritter, Leiderman, Hastorf, & Gross, 1985). In a sense, therefore, "good parenting" varies with the age of offspring and with broader family circumstances.

These are valuable research directions because they promise to contribute greater specificity to the portrayal of parental influences provided by the developmental needs of children and the demands of the family ecology. It is quite likely that future research will reveal, for example, diverse avenues toward effective parenting that take into account the unique qualities of the child (e.g., temperamental characteristics, developmental capabilities, other relational influences, etc.) as well as the ecological and interpersonal demands in which they live. "Socialization within the family" will be revealed to be a considerably more complex, and subtle, assortment of bidirectional influences between parent and offspring than are currently envisioned.

Moreover, this emerging literature will, like the attachment literature, inevitably require developmental theorists to confront questions of continuity and change in individual differences in parent–child relationships over time and how these are affected by changes in the parent(s), the child and sibling system, their living circumstances, and the ecological systems (e.g., day care, school, workplace) that affect family members at different periods of their development. As I will discuss in the next section, researchers are just beginning to consider the physicosocial ecology of human development and its ramifications for developmental processes. I suspect that one of the important catalysts for change, as well as continuity, in individual differences in parent–child relationships will be their joint negotiation of ecological transitions affecting child and adult and the timing of these transitions in relation to other developmental changes experienced by offspring (cf. Higgins & Parsons, 1983). In a sense, par-

ent–child relationships become mutually reconstructed—and their mutual expectations renegotiated—in the context of personal changes inspired, in part, by changing relationships in new or modified extrafamilial ecologies that are, for children, coincident with other important maturational changes they experience during the early years of life. Reaching age 6 or 7 means, for most children in this country, not only the progressive acquisition of important social skills affecting interpersonal interactions, but also the transition to a new social ecology (school) in which social skills are further acquired, tested, and refined in a peer subculture that is distinctly different from the family system, and which affects the child's relationships with family members. The confluence of these developmental and ecological transitions—and their effects on parent–child relationships—is an important research domain for the next decade in efforts to elucidate the bases for continuity and change in family relationships.

This leads to another important new direction in the study of socioemotional development. The attachment literature and recent studies of parenting have together invited students of socioemotional development to think more creatively about how socialization occurs through relationships and how a child's prior relational experiences affect new relationships (Hartup & Rubin, 1986). Relationships are foundational to socioemotional functioning because they are based on co-constructed patterns of interaction, mutual expectations, joint goals, shared meanings, frequent contact, and other features that are likely to enhance their significance for each partner. Moreover, the influence of significant relationships on development means that a person experiences new relationships biased by a prior relational history, a view that is amply demonstrated by studies of the effects of marital stress on parenting, the consequences of parent–offspring relationships for sibling interaction, and the long-term effects of parental divorce on children. In each case, one approaches new relationships with a history of expectations derived from earlier relationships, and changes in significant relationships affect the relationships one shares with others.

This is a provocative formulation, and its usefulness as a conceptual catalyst will be tested in the next decade of research on socialization in the context of social relationships. A major goal of future research will be to achieve greater specificity in defining the nature of relational influences. Significant others affect us in many ways, of course, and to attribute all these diverse influences to "relationships" risks endowing an unduly vague construct with significant explanatory power. After all, children are affected by parental divorce not only because of how their relationships with each adult change, but also by the economic consequences of marital breakup, their geographic move to a different home (often accompanied by school and peer transitions), the renegotiation of

familiar domestic routines, and in many other ways. It is unclear what is gained by attributing the effects of these diverse changes to changing "relationships" alone.

As another illustration, consider recent efforts to reduce child maltreatment by providing high-risk parents with social support—in essence, altering a troubled parent–child relationship through another supportive social relationship with an outside adult. Given the widely regarded social isolation of maltreating parents, such interventions promise to influence troubled relationships by providing more helpful relationships that are often lacking in the parent's natural network. The literature on social support shows, however, that social support agents assist others in many ways: through counseling, advice, or guidance, by providing information, through access to services or material resources, by aiding in skill acquisition, and even through social monitoring and social control (Thompson, 1992b). These are all "relationship" influences, but their diversity suggests that less is gained by portraying them in this manner than by identifying their distinctive consequences for recipients of aid. In the end, the relational perspective helpfully underscores that socialization occurs primarily in the context of meaningful social and emotional ties with others that endure over time. As both the attachment and parenting literatures demonstrate, however, much work remains in elucidating the nature of these relationships and their consequences for socioemotional development.

THE PHYSICOSOCIAL ECOLOGY OF HUMAN DEVELOPMENT

Because of its relevance to a variety of clinical and policy concerns, socioemotional theory and research have been applied to topics ranging from the infant day care debate to child placement decisions to the origins and consequences of child maltreatment in socioeconomically disadvantaged samples. But this is one reflection of a broader trend within the field of socioemotional development. Researchers are also increasingly considering the physicosocial ecology of human development and its implications for prevailing models of social and emotional functioning throughout life.

They have little choice but to do so. The typical conditions of human development have changed substantially during the past 30 years, so much so that researchers who assume that development occurs in intact single-wage-earner two-parent families risk anachronistic interpretations of data and findings of limited generalizability. More important, these changing conditions have direct consequences for the developmental processes under study. Despite developmentalists' interest in studying universals in human development, researchers often find that developmental

phenomena are substantially shaped by the sociocultural conditions in which people live, as noted above. This realization contributes not just to a more acute portrayal of developmental processes, but to an elucidation of the needs of children, adolescents, and adults in their ecological contexts—with important implications for public policy. This is especially true for socioemotional development because of the intrinsic links between social, emotional, and personality developments and the relationships and relational contexts that influence them.

Consequently, the late 1980s witnessed growing interest in the physicosocial ecology of socioemotional development. Even though it remains unclear whether infant day care experience normatively fosters insecure attachments (cf. Belsky, 1988), for example, researchers are regarding day care as an experience that influences social and emotional functioning because of the opportunities it allows for multiple attachment figures, the effects of the quality of care on socioemotional behavior, and the nature of the social skills that are fostered by the day care setting (e.g., Howes, Phillips, & Whitebook, 1992). Similar conclusions may apply to the after-school experiences of school-age children, whether children are in afternoon care programs (Vandell & Corasanita, 1988) or on their own (Steinberg, 1986), or are adolescents who are working in low-wage jobs. More broadly, the dynamic balance between work and parenting demands and their implications for the socialization of child behavior is being explored in two-parent (Greenberger & Goldberg, 1989) and single-parent families (Dornbusch et al., 1985), revealing significantly different ecological and relational influences for children of different ages. More broadly still, developmental researchers are becoming concerned about the effects on children of physicosocial conditions like remarriage (Hetherington, 1989), child custody placements (Kline, Tschann, Johnston, & Wallerstein, 1989), and child poverty (Huston, 1991; Korbin, 1992). In the midst of these concerns, special attention to the development of minority children is also becoming apparent (cf. Spencer, 1990).

The reason for characterizing these conditions as "physicosocial" is the growing realization that the nature of the physical ecology accompanying social relations is an important contributor to the effects of relationships on children. When parents divorce, for example, children not only typically remain in the care of their mothers but also experience significant adjustments in their residence, material resources, and other living circumstances owing to the family's typically decreased standard of living. When parents both work, their decisions concerning early child care and/or after-school care for older children have profound implications for the physical and social circumstances that influence offspring. Understanding the causes and consequences of child maltreatment requires understanding the physical ecological contexts in which maltreat-

ment often occurs. Bronfenbrenner (1979) helped inaugurate systematic appreciation of the ecology of human development in the 1980s; in the next decade, the challenge for students of socioemotional development is to expand and deepen Bronfenbrenner's provocative ideas with research focused on the profound changes that are occurring in the normative conditions of child development.

Research on the physicosocial ecology of socioemotional development not only makes developmental research more relevant to the actual conditions in which children are living, but also establishes linkages between these conditions and children's well-being that have important public policy implications. Knowledge about the effects on children of poverty, for example, or of poor-quality child care, or of conflicted joint custody divorce settlements can contribute meaningfully to public policy debates concerning welfare, day care regulations, or statutory custody guidelines. However, developmental psychologists must consider carefully their role in the debate over public policies concerning children and families. Far too often, research psychologists seek to assume roles as authoritative advisers based on their scientific expertise but with little awareness of the diverse interests and concerns underlying policy formulation, the indirect and unanticipated consequences of policy proposals that may overshadow their intended effects, the consequences for other family members of policies intended to benefit children, or the personal values that often underlie their policy recommendations. As a consequence, they often offer recommendations that extend far beyond the boundaries of their scientific expertise and sometimes ignore the diverse considerations that carefully crafted public policy requires. (At another, and equally inappropriate, extreme, researchers claim that their only responsibility is to generate informative research, and they abdicate the task of making responsible research applications to others.) In short, if their research findings are to assume a useful role in the formulation of public policies concerning children and families—as they should, consistent with the ethical mandate of psychology—developmental psychologists must become far better informed about the policymaking process than their training commonly allows. This may require more extensive collaboration with colleagues in allied fields of law, education, public health, and other fields, and may require revised models of graduate training to strengthen interdisciplinary communication (Thompson, 1993b).

CONCLUSION

Research in the 1980s not only established the field of socioemotional development as an important domain of developmental study, but also underscored its essentially integrative quality. As this review of current

research trends suggests, it is impossible to appreciate age-related changes or individual differences in emotion, attachment, temperament, parent–child interaction, or any of the variety of other topics within this domain without systematically encompassing allied achievements in cognition, self-understanding, social cognition, and the ecologies in which children and their families live. Thus one of the enduring pleasures—and challenges—of research in this area is reassembling the "whole child" from the network of allied developmental changes that tend to be otherwise studied distinctly. It is clear that this task and the challenge of applying what we learn to benefitting children remain among the important challenges of the decade to come.

However, another challenge may be even more important. This field of inquiry urgently needs thoughtful theoretical models that posit links between different domains of socioemotional functioning. This review has raised questions, for example, concerning the links between processes leading to a secure attachment in infancy and good adjustment in childhood; the associations between parenting practices in infancy and later in childhood and their implications for the continuity of socioemotional functioning; and the mediating role of the ecological context in defining "good parenting" and its consequences for children. Many other similarly integrative inquiries can be posed by drawing on literatures within socioemotional development that were not included within this review (for example, how does peer sociometric status relate to parent–child relationships and how is the conceptualization of sociometric status in elementary school relevant—or irrelevant—to adolescents' regard for their peers?). Although the field of socioemotional development reassembles the "whole child" from the panoply of developmental influences that tend to be studied independently by researchers, it lacks a coherent "theory of socioemotional development" to guide this task.

I hope it is clear from the preceding review that there is considerable potential for creating such a theory in the decade to come. To some extent, attachment theory comes closest to providing a broad view of socioemotional development, but it is constrained by attachment researchers' limited appreciation for the contributions of allied literatures as well as some outdated theoretical propositions. But there are other hopeful signs on the horizon: the emergence of functionalist views within emotions research, the provocative analysis by Dix (1991) of the affective dimensions of parenting, and new conceptual perspectives emerging from temperamental research together suggest that constructing a coherent view of socioemotional functioning throughout development is not far off. Once this is accomplished, the field will have its bearings and many more exciting research directions will be inaugurated.

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