With remarkable ease, young children acquire significant insight into mental states, their experiences, psychological processes in themselves and others, and the natural world. It is a challenge to developmental theory to understand how they do so. The contributors to this special issue highlight how children’s powerfully inductive mental capacities are aided by the conceptual catalysts of conversation, especially with mature partners. Conversation contributes to conceptual growth through the linguistic structures that scaffold developing knowledge (especially of complex and intangible influences) and permit its sharing; through the encounter with divergent perspectives and a more knowledgeable partner; through its influence on representations of past, present, and anticipated events; and as a medium of cultural transmission. Parents’ conversational discourse provokes conceptual growth in developing minds, and children also contribute significantly to conversational quality, which is affected by the quality of the parent-child relationship, the emotional climate of the home, and other influences. This article introduces the special issue by profiling these issues and identifying central themes for future research.

One of the most remarkable challenges for developmental theory has been to understand how young children become so insightful about the human mind. By contrast with traditional portrayals of the egocentric and self-concerned preschooler, it has become apparent that young children comprehend early on that others’ thoughts and feelings are different from their own, that young children are intensely interested in what others desire and believe, and that they begin to acquire this understanding remarkably
early. As research on theory of mind has shown, toddlers begin to grasp the influence of intentions, desires, and feelings on behavior, and preschoolers begin to comprehend the representational nature of beliefs, understand how emotions can be evoked by mental events, and predict others’ behavior based on psychological traits (for recent reviews see Harris, in press a; Thompson, in press). Even more remarkably, young children appear to acquire these psychological insights effortlessly.

How they do so remains something of a mystery. Understanding the psychological world is a conceptual challenge to young children. The intentions, goals, feelings, thoughts, and traits that underlie human conduct are invisible and complex and are only indirectly revealed in behavior. These psychological states are also multidetermined, and significant individual differences in people’s goals, traits, and dispositions are likely to complicate efforts to infer these psychological entities based on naive observation alone. In short, the young child who seeks to understand the psychological determinants of behavior faces a considerable conceptual challenge in doing so.

Conventional interpretations of the research evidence suggest that young children are equipped with powerful intellectual capacities for deducing mental states based on early experiences of joint attention and inferences of self-other equivalence, from which they begin to construct intuitive theories of mental states and their associations with behavior. But scientific voices are increasingly questioning the adequacy of this individualistic constructivist view. In a recent review, for example, Carpendale and Lewis (2004) argued that constructing an understanding of the mind in early childhood requires experiences of cooperative social interaction and exposure to talk about mental states in addition to the child’s personal inferences about the psychological world. This emerging view is consistent with others that have focused attention on the role of language—and the social experiences accompanying language—in young children’s developing theory of mind (e.g., Astington & Baird, 2005; Harris, de Rosnay, & Pons, 2005).

Understanding the mind is not the only challenge young children face. They are very interested in understanding their experiences, psychological processes in themselves and others, the natural world, and other phenomena for which invisible, complex processes are also at work. The view that conversation—which includes language and its associated social interactions—contributes to early understanding is incorporated into theories of conceptual development in these domains as well. Autobiographical memory, for example, is believed to be founded on the development of a sense of self, an awareness of the temporal connections between past and present events, and the content and structure of parent-child conversation that
helps young children understand the distinctiveness and meaning of personal experiences (Nelson & Fivush, 2004). Current views of the early development of memory and event representation emphasize how attentional deployment, encoding, and retrieval are scaffolded by the elaborativeness of maternal conversational discourse, both while events occur and later when they are recalled (Ornstein, Haden, & Hedrick, 2004). Emotion understanding is associated with how often parents discuss feelings with their children and the richness of their conversational prompts (Dunn, 2002; Thompson, Laible, & Ontai, 2003). Conscience development is also predicted by maternal references to emotion when discussing the child’s past misbehavior (but not by maternal references to rules and consequences), although mothers who are emotionally “power assertive” when doing so have offspring with lower scores on conscience measures (Kochanska, Aksan, & Nichols, 2003; Thompson et al., 2003). Consistent with these findings, attachment theorists have long argued that when parents and children can discuss feelings and events in an open, fluid, and candid manner, it contributes to more secure relationships and the development in children of more positive representations (or “internal working models”) of others and self (Bretherton & Munholland, 1999). The importance of conversational catalysts to conceptual growth is not limited to early childhood. Understanding scientific concepts relevant to the natural world also requires comprehending invisible realities in which analogies and other kinds of similarity comparisons, usually suggested by adults, are conceptually helpful (Gentner & Lowenstein, 2002). Taken together, the construction of understanding by the inductive young mind is profoundly aided by the conversational prompts of a mature partner.

Harris (in press b; Harris & Koenig, 2005) has recently argued that children accept the testimony or claims of adults on a wide range of issues of importance to them, from understanding of the shape of the earth and other natural phenomena, to the association between mind and brain and other psychological phenomena, to the nature of God, the afterlife, and other metaphysical phenomena. Early on, children develop understanding based on their acceptance of the truthfulness of what they are told but cannot independently confirm, and this knowledge is readily integrated into knowledge systems based on personal experience. Children are intuitive theorists who build their theories based partly on what they learn from conversation. As the contributions to this issue indicate, this begins early and significantly with young children’s efforts to understand the invisible processes of mind, emotion, and experience.

This special issue of *Merrill-Palmer Quarterly* is devoted to examining the current status of research on conversation and developing understanding in children and to identifying future directions for inquiry. The
five articles in this issue focus on conversational influences on a range of conceptual developments, including children’s autobiographical memory, temporal perspective, understanding of emotion and coping, and comprehension of science concepts. The authors, drawing from their programs of research, were asked to focus on the processes by which conversational discourse contributes to the development of understanding, as well as the contexts, moderators, and features of discourse that affect its influence. The two commentators, Paul Harris and Judy Dunn, have also made seminal contributions to this field, and in their essays they provide a critical perspective and a view to future research. Together, our hope is that this special issue will be a catalyst to incisive future research that elucidates how children create their understanding of a complex world through their exchange of knowledge with a more experienced person. In this introductory essay I profile some of the broader issues that frame this special issue and this area of research inquiry.

**Conversation and Developing Understanding**

Parents and children talk together in a variety of contexts about a range of topics. They discuss shared experiences of the recent past; expectations for routine and unusual events in the immediate future; shared observations of the behavior of other people; the content of storybooks and other texts (including the Bible), TV, video, computer software, and other media; natural phenomena (such as rainstorms, plant growth, and animals) observed at home, park, zoo, or in a museum; and conflicts that emerge in the course of everyday events. Parents and children discuss not only everyday events but also the critical experiences of children’s lives, such as emergencies, major changes (such as beginning preschool), or family life transitions. Parents and children not only talk about events but also during events, and the content and style of their conversation focuses children’s attention on certain features of their shared experience rather than others.

Why should the content and quality of conversational discourse affect the development of understanding about the psychological and natural world? Several reasons are apparent from research in this area, and because none is exclusive it is likely that most everyday conversations incorporate several of these conceptual catalysts (see also contributors to Astington & Baird, 2005; Budwig, 2002).

First, words provide semantic referents for elusive psychological or natural phenomena that otherwise might be inchoate or unclear in the child’s prelinguistic mental representations (Bartsch & Wellman, 1995). Infants distinguish emotional expressions before their first birthday, but the advent of language enables toddlers to parse the ongoing flow of observed
emotional behavior into discrete phenomena labeled “happy,” “sad,” “mad,” and so forth. It is not only the language they learn that “lexicalizes” mental, emotional, and other phenomena but also the language they hear in conversation with adults who convey psychological explanations for the behavior they observe or scientific explanations for the natural events they watch. By naming psychological and natural phenomena, adults and children make them an object of explicit reflection and analysis.

Words are important not only because of the categories that make explicit the invisible psychological and natural phenomena that interest children but also because they are the avenue by which knowledge structures concerning these phenomena become organized. In conversation, adults disclose the psychological realities of human behavior because they have long inhabited a psychological world of intentions, goals, feelings, desires, thoughts, traits, and beliefs and because it is natural for them to discuss people’s behavior with reference to these internal motivators. As young children begin to comprehend the semantic referents to psychological states, they develop explicit knowledge structures for these phenomena and conceptualize their own inner experiences according to these linguistic (and cultural) categories. Moreover, words provide the avenue by which young children can share these experiences with others, compare their direct representations of experience with the secondary representations of another through conversation, and appropriate knowledge about these experiences. This is true of the range of phenomena that young children seek to comprehend: the psychological world, the natural world, and even supernatural phenomena.

Second, conversational discourse directs attention to significant elements of an event and aids in comprehension, memory, or understanding (Ornstein et al., 2004). Conversation during an event focuses the child’s attention (and encoding) on significant or salient features, such as when parents point out the structures of a flower or draw attention to another’s feelings when the child is in conflict. Shared reminiscing contributes to the child’s retrieval of significant aspects of past experiences and provides narrative coherence and structure to the child’s representation of past events (Nelson & Fivush, 2004). This is especially valuable if the past event in discussion was confusing or emotionally stressful to the child. Talking about future events creates anticipatory event representations, providing predictability about what will occur in the near term (Hudson, 2002). In each case, understanding and memory in a conversational context are likely to be much different than when the child is alone, and conversation may help to reconstruct the child’s recollection and comprehension in significant ways.
Third, linguistic syntax itself can aid in comprehending psychological states (de Villiers & de Villiers, 2003). When adults use mental verbs as subordinate clauses in their conversations with children (e.g., “I thought you took the dog for a walk”), these sentential complements highlight the mental and psychological states related to behavior. Young children begin to use these complements early, and their use of these and other conversational references to mental states elicits further references to psychological states from adults. Sabbagh and Callanan (1998) found, for example, that when 3- to 5-year-olds initiated conversational references to the mind by implicitly contrasting different mental states or saying “I don’t know,” their parents responded by highlighting the representational aspects of mental states, and this often elicited further explicit talk about mental states from their children. De Villiers and de Villiers (2003) argue that the acquisition of the syntactic ability to understand sentential complements underlies the growth of false-belief understanding because sentential complements highlight incorrect mental states embedded within accurate statements, and there is experimental evidence in support of this view (Lohmann & Tomasello, 2003). What Reese and Cleveland (this issue) call “metamemory comments” (e.g., “I had forgotten that part”) of a shared reminiscence may serve a similar function for the development of psychological understanding.

Fourth, the experience of conversation is a tutorial in shared and divergent psychological states (Harris, 1999). Conversation potentially confronts each participant with the realization that another person has a different representation of a shared experience, and this contributes to an awareness of the subjectivity of feelings, goals, desires, beliefs, and other psychological states. Divergent understanding also alerts young children to knowledge that they do not have. Encountering different subjective viewpoints in conversation may be an early and frequent experience for young children. Levine, Stein, and Liwag (1999) found that parents and young children commonly disagreed about the child’s feelings and experiences when recalling shared events, often because adults made assumptions about the child’s goals that were incorrect, particularly when children were unhappy. Harmony in perspective makes for satisfying parent-child interaction, but divergent perspectives can be a catalyst to conceptual growth.

Finally, through language the child is able to appropriate cultural values, beliefs, temporal perspective, and a sense of personhood that comes from being a cultural member (Nelson, 1996). This also begins early, as a toddler’s perception of emotion in self and others becomes channeled into the cultural categories for emotion reflected in language terms. Temporal understanding is fostered by linguistic structures denoting activity in time
and by conversational prompts that relate past and future events to the present self. More broadly, and with increasing age, a child’s comprehension of moral values, human traits, motivational attributions, and other human qualities is facilitated by linguistic referents to these abstract entities as they are defined by the culture.

The focus of this special issue on conversation also highlights the importance of the partner with whom conversation is shared. Although conversations with peers, siblings, and other people are also conceptually provocative (e.g., Brown, Donelan-McCall, & Dunn, 1996; Hughes & Dunn, 1998), all of the studies in this issue concern children’s conversations with parents, usually their mothers. Parent-child conversations are especially influential because they are ubiquitous and salient and because they occur in a relational context characterized by diverse interactional exchanges, mutual reciprocity, differential competence, and strong emotion. Relationships vary in warmth and quality, of course, and the nature of the relationship may also moderate how parent-child conversation influences developing understanding (Laible & Thompson, in press; Thompson et al., 2003). Laible and Thompson (2000) found, for example, that the frequency of maternal references to emotion in conversations about the child’s prior behavior was associated with conscience development in 4-year-olds. But this association was especially strong for children with insecure attachments to their mothers, perhaps reflecting the added benefits for these children of explicit maternal references to other people’s feelings. Laible and Song (this issue) report somewhat similar findings, suggesting that further exploration of how broader relational quality moderates the impact of conversational quality is warranted (Laible & Thompson, in press).

Contributions of Conversational Partners

Taken together, these portrayals of the influence of conversation suggest that the content and quality of an adult’s language significantly influence the growth of understanding in childhood. Several additional sources of evidence support this conclusion (see Harris et al., 2005).

First, in a longitudinal study, Ruffman, Slade, and Crowe (2002) independently assessed mother-child conversation and children’s language and theory of mind on three occasions over a 1-year period, beginning when children were 3 years of age. They found that mothers’ use of mental-state language (but not other language referents) was consistently associated with children’s later theory-of-mind understanding, beyond any contribution of children’s prior language ability or theory-of-mind capability. Moreover, earlier theory-of-mind performance did not reciprocally
predict mothers’ later mental-state language, suggesting that maternal language is indeed a causal influence (see also Hughes & Dunn, 1998, for similar findings related to conversation between peers). Such a conclusion is important for addressing the possibility that the association between parental talk and children’s understanding arises because of prior differences in children, such as their curiosity about psychological or natural phenomena.

Second, a training study with 3-year-olds showed that only training conditions involving language improved children’s subsequent performance on false-belief tasks. The language conditions that were effective involved perspective-shifting discourse (i.e., discussing mental deception using deceptive objects, such as a pen that looks like a flower) or syntactic prompts (i.e., sentential complements, such as “Peter knows that Mommy’s home”), although the greatest influence derived from training conditions involving both perspective-shifting and syntactically relevant discourse (Lohmann & Tomasello, 2003). This conclusion also supports the causal influence of conversation—at least in the development of theory-of-mind understanding—and indicates that this influence can occur independently of characteristics of the child, the adult, or their relationship.

These conclusions are consistent with a large research literature documenting the strong associations between the content and quality of maternal discourse and children’s understanding of the mind, emotions, and other psychological phenomena (for reviews see Harris, in press a; Thompson, in press). Considerably more remains to be understood about the influence of parent-child conversations on developing psychological understanding, and the commentaries by Harris and Dunn in this issue explore these future research goals further. For the present, however, a working assumption that adult conversational influences are provocative of children’s conceptual growth appears warranted. Such an assumption is consistent with other evidence concerning parental influences on developing psychological understanding. Meins et al. (2002) found, for example, that 6-month-olds whose mothers commented on their actions in ways that reflected awareness of the baby’s intentions, goals, or other psychological states were subsequently more advanced on false-belief assessments at age 4. If these differences in maternal “mind-mindedness” are found to be associated with how parents later converse with their young offspring about mental and emotional events, it suggests that variations in conversational quality may emerge early and be related to perceptions of the developing child as a person with psychological depth.

The focus of these studies on establishing the causal role of parental language on developing psychological understanding is important, but
they risk neglecting an alternative approach to the nature of parent-child conversation and conceptual growth. From a neo-Vygotskian perspective, developing understanding is not merely a matter of young children acquiring knowledge from an adult mentor but rather the shared construction of understanding from joint activity to which both partners contribute (see, e.g., Rogoff, 1990). In this view, understanding is appropriated from interactive activity rather than simply acquired from another. With respect to the study of parent-child conversation and conceptual development, therefore, the focus is on the contributions of both parent and child to shared conversations, the influences that affect each partner’s conversational contributions (related to family processes, relational harmony, or the personality qualities of each partner), the mutual negotiation of the content and course of their conversation, and how these co-constructed conversations contribute to the growth of the child’s understanding. In this issue, the studies by Valle and Callanan and by Hudson exemplify this perspective with respect to the growth of scientific understanding and conversations about future events. Conceptual development is influenced by parent-child conversation, but conversation is itself assumed to be a joint product of parent and child, not of adult discourse alone.

How do children influence the course of parent-child conversation? In many ways: by their willingness or resistance to participate (especially when discussing difficult or sensitive topics, such as stressful events or misbehavior), by their switching of topics or introduction of new topics, by disputing the adult’s interpretation of events, by their emotional demeanor during conversations, and by their capacity to put into words their emotional or psychological experience. In research in our laboratory, for example, Abbie Raikes and I have found that in conversations with their mothers about recent emotional experiences, 3-year-olds varied not only in their use of emotion words but also in their capacity to spontaneously generate labels for their own emotional states in the absence of a maternal prompt. These two facets of emotion language had different determinants: the security of attachment (assessed a year earlier) predicted emotion labeling but not the child’s use of emotion words, while the reverse was true for differences in language ability. Most importantly, both the child’s use of emotion words and the child’s capacity for emotion labeling influenced the course of parent-child conversation about emotion. Other researchers have found that differences in child temperament also influence conversational quality (Laible, 2004). Children contribute significantly to the course of parent-child conversation.

In the light of the dyadic co-construction of conversational quality, it is often valuable to study conversation as a shared enterprise. In our study, Raikes and I combined measures of maternal and child emotion language
into a single index and sought to understand its prediction (along with other variables) of the child’s emotion understanding. We found that mother-child emotion language mediated the influence of the security of attachment on emotion understanding; secure mother-child dyads discussed emotion much more often than did insecure dyads, and children in secure relationships were also stronger in emotion understanding. Maternal depression, by contrast, had a directly negative impact on children’s emotion understanding independently of differences in conversational content (Raikes & Thompson, in press). Because the families in this study were drawn from a socioeconomically disadvantaged sample, the climate of the home was often emotionally troubled, with high rates of maternal depression and other aversive family events. Studies such as these highlight how conversational quality is influenced by the contributions of both partners, together with the quality of their relationship and broader features of the family environment. Without this perspective, it is more difficult to understand why parents talk with their children as they do and how conversational quality is associated with other family influences on developing psychological understanding. The study by Fivush and Sales in this issue offers a further illustration of this approach to studying parent-child conversation.

In the end, this dynamic, interactive approach to the growth of understanding in children is even more appropriate to the study of conceptual growth as children mature and become more active contributors to shared conversation. As Harris (in press b; Harris & Koenig, 2005) has noted, children are not passive recipients of adults’ testimony about matters of interest to them. Their inquiries about animals, people’s beliefs, or God provoke the conversations that inform them, and as they attempt to juxtapose their current conceptions with what they learn, their comments, queries, and objections further guide the discussion. The most appropriate way to conceptualize the influence of conversation is not as the internalization of the beliefs, values, and knowledge of another but rather as the appropriation of understanding from shared discussion and activity. This begins early in life.

New Directions for Future Research

The contributors to this special issue offer new insight into conversational quality and the development of early understanding. Reese and Cleveland report that mothers’ reminiscing style is associated with young children’s understanding of mind, drawing special attention to differences in maternal metamemory comments that refer explicitly to the process of memory. Laible and Song note that both the quality of maternal discourse in parent-
child conversations and the affective quality of parent-child interaction are associated with emotional and relational understanding in early childhood. Hudson reports that children’s future-oriented talk is elicited by maternal temporal elements in shared conversation about the future and that future-oriented maternal speech is linguistically more complex than talk about the past. This study highlights the conceptual challenges to young children in pondering an indeterminate future as well as the ways that maternal discourse scaffolds comprehension about future events. Valle and Callanan show that adults use similarity comparisons and analogies in their efforts to help older children comprehend invisible or complex concepts in the natural world, such as the nature of infectious processes. Moreover, children subsequently appropriate these conceptual heuristics in their own explanations of these phenomena. Finally, Fivush and Sales focus on mother-child co-constructed narratives about stressful emergency situations for the child, and their findings indicate that maternal coping is associated with narrative elements that are also associated with children’s emotional well-being.

The contributors to this issue also underscore a number of issues for future study. One concerns the contexts of parent-child conversation. How conversation contributes to conceptual growth varies with the contexts in which it occurs, the themes it addresses, and the purposes of conversation. Maternal references to feelings contribute to emotion understanding when they occur in warm, relaxed conversation, for example, but they do not have these benefits when they occur in heated parent-child conflict (Laible & Thompson, 2002; Thompson, in press; see also Dunn & Brown, 1993). This is one reason why early moral socialization is likely to occur more readily in parent-child discussions of past misbehavior than during the immediate confrontational context of the discipline encounter (Thompson, Meyer, & McGinley, 2006). Similarly, maternal elaborations have a very different function when they occur while events are happening (attention-focusing) compared with reminiscing about past events (eliciting and organizing the child’s recall) or anticipating the future (creating a representational structure for an indeterminate event). Several of the contributors to this issue, especially Laible and Song (see also Laible, 2004) and Hudson, draw attention to how context moderates the influence of specific conversational features on children’s understanding. While this much is clear, systematic research attention to contextual influences will contribute to a better appreciation of the elements of conversation that are relevant to specific conceptual advances in childhood, and why.

Another future challenge is understanding the origins of individual differences in parental discourse in conversation with offspring. Why do some adults naturally make more references to mental states when talking
with children? Why do some talk more frequently and openly about emotion? Why do some contribute rich, elaborative detail in their discussions of past or future events with young children? Fivush and Sales explore these questions within the framework of attachment theory, which provides a valuable perspective for understanding adult coping with stressful family events and its influence on adults’ capacity to assist offspring in doing so. Other differences in conversational quality may arise from how adults view the child. In another study in our lab on future-oriented conversations, one mother remarked that she preferred not to discuss anticipated future events with her young daughter because she did not want her child to worry about things to come or to count on pleasures that might not happen. Parents’ representations of the child’s psychological world likely influence how they talk with offspring and whether they enrich these conversations with insight into people’s thoughts and feelings, how to cope with challenges, and expectations for the future. These representations have been portrayed as variations in maternal “mind-mindedness” (Meins et al., 2002) or “insightfulness” (Oppenheim & Koren-Karie, 2002), but little is known about how they are associated with parent-child conversation. Beyond security and psychological insight, it will also be important to study variations in parental discourse in relation to emotional well-being (such as depression and parenting stress), sensitivity, and the broader family climate. This is especially important when studying conversations in disadvantaged and stressed families, by contrast with the middle-income samples that have been the primary focus of research thus far.

Yet another issue for future research concerns how to portray the developmentally changing influences of parent-child conversation on children’s understanding. From the time that young children can converse, parent-child discourse is further associated with the development of prototypical event representation, reminiscence of past events, and growth in theory of mind. Later in the preschool years, parent-child conversation is associated with the development of autobiographical memory and a capacity for future temporal reference. Throughout this period and into the school years, conversational catalysts are important to emotional coping with stressful events, understanding the natural world, and speculating about the metaphysical. As the articles in this special issue attest, different conversational catalysts are relevant to these accomplishments at different periods of childhood.

Equally importantly, conversation itself appears to assume an evolving role in facilitating children’s conceptual growth. Initially, young children appropriate from the structure and narrative coherence of language a means of representing experience, and in early childhood the secondary representations derived from conversation contribute to amplifying or
even reorganizing children’s primary representations from direct experience. But with increasing age children begin to test the knowledge they derive from conversation against their own experiences and their thoughtful reflection. Harris (in press b; Harris & Koenig, 2005) has argued that the linguistic markers of adult conversational speech help children distinguish veracious assertions that they cannot independently confirm (e.g., the existence of dinosaurs) from assertions of metaphysical realities (e.g., the existence of God) from assertions of a fictive or potentially fictive nature (e.g., the existence of giants or Santa Claus). But linguistic markers are not the only means by which children make these distinctions. The child’s reflective analysis of plausibility, the testimony of others, and the clarity and consistency of adult assertions are additional means of evaluating the veracity of adult accounts about phenomena that the child cannot experience directly. Understanding how the child’s developing analytical capabilities interact with the claims of others provides a valuable window into the nature of conceptual development and the evolving role of conversation in cognitive growth. In a broader sense, it provides enhanced insight into the developing nature of the constructivist mind.

Conclusion

The conversational excerpts included in several of the reports of this special issue attest to the potency of what happens when a child and an adult exchange understanding about matters of common interest. It becomes immediately apparent that the younger participant is neither passively internalizing representations conveyed by the adult nor constructing understanding independently of the conversation. Rather, in responding to each other, both partners are creating a shared representation that each will appropriate in different ways. Understanding cognitive growth in this manner has the potential of combining admiration for the powerfully inductive mental capacities of the young child with respect for the conceptual catalysts that are offered by adult expertise. We hope that this special issue contributes to new understanding and inquiry into the conversational process.

References


