Chapter 3
Taking Center Stage: Infants' Active Role In Language Learning

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Abstract In this chapter, we highlight the ways that infants actively shape their social experiences around language—through their everyday behaviors and developmental advances. We review the perceptual, social, and cognitive capacities that infants bring to the task of learning language. We then show that infant real-time exploratory, play, communicative, and locomotor behaviors are impetuses for social interactions. As infants act on their worlds, they elicit temporally contingent, lexically rich, developmentally attuned, multimodal inputs from parents. Indeed, much of the speech that parents direct to infants is driven by what infants are doing in the moment. Finally, we examine how developmental changes in infants' language, play, and motor skills expand infants' opportunities for learning language. As infants progress in abilities such as talking and walking, they engage with the objects and people of their environments in new ways, thereby eliciting novel language inputs from parents and other caregivers.

Introduction

Infants produce a rich variety of behaviors over the course of a day, often to the exhaustion of their parents. They bang spoons and cups on tables; mouth, explore, and play with toys; hold out objects to share; wander from room to room; squeal in delight; and climb stools, couches, and chairs. Infants are intensely involved with the people, spaces, and objects of their environments, and along the way, learn a lot about what they can do and how the world works.

Whether infants' unbridled activity reflects intrinsic motivation, natural curiosity, or something else, it has serendipitous payoffs. As infants interact with objects and

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people, they generate rich perceptual and social feedback that paves the way for learning language. Infants hear the word "spoon" as they see and feel their spoon bang. They are warned "NO!!!" as they teeter on the brink of a changing table. They elicit imitations and verbal expansions in response to their babbles. And they are encouraged to "turn the page" as their fingers grasp the corner of a book. With age, infants develop new skills that further transform their social experiences and language environments. As infants' vocabularies expand, parents introduce new words (Masur, 1997); as sentences grow in complexity, so does parents' infant-directed speech (Snow, 1972); as infants transition to crawling and then walking, parents intensify prohibitions, imperatives and predicates (Campos, Kermoian, & Zumbahlen, 1992; Karasik, Tamis-LeMonda, & Adolph, 2014); and as infants advance in symbolic play, parents encourage increasingly advanced forms of play (Damast, Tamis-LeMonda, & Bornstein, 1996; Tamis-LeMonda & Bornstein, 1991).

Here we highlight the ways that infants orchestrate, unwittingly but fortuitously, their social experiences around language—through everyday behaviors and developmental achievements. Parents are vigilant and eager participants in infants' language-learning journey, and much of their child-directed speech is driven by what infants are doing in the moment. We first review the foundational perceptual, social, and cognitive capacities infants bring to the task of learning language. We then show that infant exploration and play, communication, and locomotion are impetuses for social interactions: Infants elicit temporally contingent, lexically rich, developmentally attuned, multimodal inputs from parents. Finally, we examine how developmental changes allow infants to engage their environments in new ways, and expand opportunities for learning language.

Our focus builds on theoretical writings of the "active infant" (Bell, 1979), transactional processes in social interactions (Sameroff, 2009), and dynamic systems theories of learning (Thelen & Smith, 1998), which have rarely been applied to infant language learning. And, most socio-cultural studies of language learning focus on the input parents provide, and overlook infants' role in eliciting that input. Thus, we flip the lens, so to speak, by considering infant behaviors in the moment and changing skills across development as primary catalysts for learning language.

Foundational Language Skills

Infants are equipped to learn language from birth (and even before). They extract phonological, semantic and grammatical regularities from language inputs, and are quick to detect temporal contingencies in word-environment connections, skills vital to language development.

Statistical Learning

Newborn infants prefer speech to other non-speech sounds (Vouloumanos & Werker, 2004) and can discriminate among the many consonants and vowels of the world's languages (Streeter, 1976; Werker, Gilbert, Humphrey, & Tees, 1981). With

experience and age, infants' discrimination of familiar phonemes sharpens, but they gradually lose the ability to discriminate contrasts in non-native languages (Bosch & Sebastián-Gallés, 2003; Kuhl, Williams, Lacerda, Stevens, & Lindblom, 1992; Werker & Tees, 1984).

Infants also exploit statistical learning cues to discover which phonemes in an auditory stream belong together—the foundation to learning words. Infants treat phonemes or syllables that frequently co-occur as a single unit—such as when an infant recognizes that "bot" and "tle" form the word "bottle." Eight-month-old infants extracted statistical regularities in the co-occurrence of syllable pairs from auditory streams that contained no cues to word boundaries (Saffran, Aslin, & Newport, 1996), and were able to use those cues to segment "words" in artificial and natural languages (Pelucchi, Hay, & Saffran, 2009). Moreover, infants develop sensitivity to phonological stress patterns, for instance learning that English typically emphasizes the first syllables of words (*ta*-ble; *cray*-on; *doc*-tor) (Jusczyk, Friederici, Wessels, Svenkerud, & Jusczyk, 1993; Jusczyk, Houston, & Newsome, 1999). Infants' impressive capacities to extract statistical regularities allows them to figure out which phoneme combinations are possible in their language (Saffran & Thiessen, 2003): Seven-month-old infants learning two languages used statistical information in prosodic contours to segment noun phrases from continuous speech (Gervain & Werker, 2013; Saffran & Thiessen, 2003).

Statistical learning also helps infants identify the environmental referents of words. Infants track likelihoods of co-occurrence across streams of events (words and referents), for example, by recognizing that the likelihood of hearing the word "truck" in the presence of a truck is greater than hearing the word airplane, car, and so forth. Twelve- and 14-month-old infants were presented with pictures of different objects and novel words across trials, which created ambiguity around which words referred to which objects. However, some word-object pairs were more likely to co-occur across trials than others. Infants looked reliably longer to word-object pairs that occurred together with high likelihood than to those that did not co-occur, indicating that they used cross-modality statistical information to decipher word meanings (Smith & Yu, 2008).

Contingency Detection

Contingency detection refers to infants' basic capacity to detect and learn from the feedback generated by their actions (Rochat, 2014; Rochat & Rochat, 2009). Two-month-olds increased sucking when auditory input was contingent on sucking (Rochat & Striano, 1999) and showed heightened attention to music produced in response to pulling an arm string than music played randomly (Lewis, Alessandri, & Sullivan, 1990). During social interactions, infants become distressed when their actions fail to evoke a caregiver response, as illustrated in the classic "still-face paradigm" (e.g., Bigelow & Rochat, 2006; Cohn & Tronick, 1987; Goldstein, Schwade, & Bornstein, 2009; Moore & Calkins, 2004). Infants also perceive

contingent regularities in others' behavior, for example, recognizing that adult's reaches for objects consistently result in contact with the desired objects (Baldwin, Baird, Saylor, & Clark, 2001; Feldman, 2003), or that adults reliably look toward objects of interest.

Contingency detection is foundational to language learning. Infants must be able to detect the tight temporal alignment among words, objects and events during everyday activities if they are to make sense of the speech directed to them. As an infant sees, touches, smells, and tastes an orange, simultaneously with hearing "orange," the word takes on rich meaning because of accompanying multimodal cues. Infants' keen sensitivity to the contingency of social interactions helps explain why word learning is facilitated by responsive language (Tamis-LeMonda, Kuchirko, & Song, 2014).

Summary

Statistical learning and contingency detection are basic learning mechanisms crucial to acquiring language. Infants exploit these capacities during everyday social interactions to discover how sounds combine to form words and how words map to objects and events in the environment. We next investigate how infants' exploratory, communicative, and motor actions function to elicit timely, meaningful, and lexically rich language inputs from parents. In turn, the perceptual and social feedback generated by these behaviors are seeds to learning words.

Real-Time Behaviors

Infants can only learn words to which they are exposed. A full appreciation of the language-learning process begins with infants' active role in social interactions—the moment-to-moment infant behaviors that induce social input from adults. Infant vocalizations, gestures, object exploration, and play generate rich perceptual and social feedback that fuels learning.

Vocalizations and Gestures

Infants' vocalizations elicit rich language and physical feedback from parents. Already by four weeks of age, infants produce a variety of sounds, and their caregivers respond with language immediately following infant vocalizations (Hsu & Fogel, 2003; Keller, Lohaus, Völker, Cappenberg, & Chasiotis, 1999). Parents pause after their own vocalizations to allow infants to vocalize as part of a conversational chain (Jasnow & Feldstein, 1986). Mothers are much more likely to talk following

infant vocalizations than talk when infants are silent (Tamis-LeMonda, Kuchirko, & Tafuro, 2013).

The quality of infant vocalizations also matters, with consonant-vowel sounds, for instance, being more likely to elicit caregiver responses than vowel-only sounds (Gros-Louis, West, Goldstein, & King, 2006; Hsu & Fogel, 2003; Markova & Legerstee, 2006; Papoušek, 2007). To illustrate, associations between infants' preverbal vocalizations and maternal verbal responses were examined during unstructured play (Gros-Louis et al., 2006). Over 70% of infants' preverbal vocalizations were followed by mothers' contingent responses. Infant vocalizations that sounded like vowels or consonant-vowel clusters led to different social responses. Specifically, infants' vowel-like vocalizations induced social play in mothers, whereas infants' more developmentally advanced consonant-vowel vocalizations led to more maternal imitations and conversational replies (e.g., "Is that what it is?"). Consonant-vowel vocalizations were seemingly interpreted as "pseudo-words" by mothers, and were thus effective catalysts to social conversations.

Before using conventional words, infants also communicate their interests and intentions with gestures: they point to objects and people, and move their hands and bodies to represent specific objects and events (e.g., flapping arms to refer to a bird). Infants' gestures elicit gestural inputs from mothers (LeBarton, Goldin-Meadow, & Raudenbush, 2015). Gestures of 14-month-old infants elicited referential language from mothers (Tamis-LeMonda et al., 2013), and 16-month-old infants' gestures related to maternal gestures, which then related to children's vocabulary size (Iverson, Capirci, Longobardi, & Caselli, 1999).

Infants also actively participate in give-and-take, reciprocal exchanges with parents, by adapting the temporal flow of their own vocalizations and gestures to match that of their mothers. Infants vocalized and gestured within 3 s following mothers' language and gestures, and improved in their temporal attunement across the second year. And, infants who were more contingently responsive to their mothers' actions had mothers who were reciprocally more responsive to their infants, underscoring how infants' communications shape and are shaped by their social experiences (Kuchirko et al., 2017).

Object Manipulation and Play

Once infants develop hand-eye coordination and grasping abilities, they spend a substantial portion of their waking hours playing with objects in their environments. Eleven- and 13-month-old infants spent half their awake time touching, manipulating, and carrying objects during everyday routines at home (Karasik, Tamis-LeMonda, & Adolph, 2011). Infants transported objects from room to room, and frequently attempted to share those objects with mother, by holding objects up as they played on the floor or by carrying objects over to mother. During play with beads and string and sharing of books, infants touched objects about 80% of the

time, providing ample opportunities for their mothers to offer relevant language inputs (Tamis-LeMonda et al., 2013). Infants' engagements with objects are salient to mothers, who respond promptly (within 2 or 3 s) by talking about the objects of infants' interests and ongoing activities.

Infant object play paves the way for exposure to precisely the type of maternal speech that supports vocabulary growth (Goldstein & Schwade, 2010; Tamis-LeMonda et al., 2014). Mothers respond to infants' object play with didactic language that refers to objects, activities, or events in the environment. They describe, label, or ask about the unique qualities of the referent or event ("What color is the spoon?" "The rabbit's hopping"). To illustrate, mothers and their 14-month-old infants were observed sharing wordless books and beads with a string. Mothers' and infants' exploration of objects (simultaneous looking and touching of objects) and mother language were coded. Infants' object play and exploration led to high rates of maternal responsiveness relative to infants being off-task (Tamis-LeMonda et al., 2013). Furthermore, mothers' verbal responses to infants' object actions were rich in content: Mothers were more likely to use didactic/referential language of high lexical diversity (language that described objects and events with nouns, verbs, adjectives, and adverbs) than regulatory language (language that directed infants' actions or attention with many pronouns) following infant communication. Notably, didactic language is associated with infants' vocabulary size, rate of vocabulary growth, and communicative diversity in early language development (e.g., Hart & Risley, 1995; Hoff, 2003, 2006; Huttenlocher, Haight, Bryk, Seltzer, & Lyons, 1991; Tamis-LeMonda, Baumwell, & Cristofaro, 2012).

Infants' object play and exploration (just as vocalizations and gestures) likewise prompt embodied inputs from mothers. Embodied inputs refer to the multimodal coordination of language with physical cues, as when a parent simultaneously looks to, and touches or points to an object while labeling it (Tamis-LeMonda et al., 2014; Tamis-LeMonda et al., 2013). For example, a mother might respond to infant object play by asking the infant, "What is that?" or "What color is that?" or "Look! It's a cup." Such embodied inputs support infants' language learning because speech that is accompanied by gestures and touch helps infants identify the topic of talk and thus decipher the meanings of utterances (e.g., Matatyaho & Gogate, 2008; Rowe & Goldin-Meadow, 2009; Tamis-LeMonda et al., 2012).

Summary

Infants actively participate in their learning experiences through vocalizations, gestures, exploration and play with objects, and so forth. These mundane, moment-to-moment behaviors create abundant opportunities for parents to respond with verbal and physical inputs that promote language learning. The next section investigates how developmental changes in infants influence their language experiences.

Developmental Changes

The advent of new skills opens up a world of opportunities for infant learning and social interactions (Adolph & Tamis-LeMonda, 2014; Iverson, 2010). Infant developmental achievements—ranging from play to language skills to locomotion—elicit new responses and language inputs from caregivers (Bornstein, 2013). Here we consider how developmental changes across the first two years instigate new language experiences for infants. We show that changing skills of infants lead to adjustments by parents in the content and complexity of their language, what parents respond to, and how they respond. In turn, these changes in parental behaviors instigate further language gains in toddlers.

Developments in Play and Language

Infants display rapid advances in play and communicative skills from the first year of life through the end of the second year. These developmental gains result in new social experiences that broaden the infants' world of language.

From Exploration to Symbolic Play As infants advance in their play, mothers reduce their responses to certain types of infant play behaviors and increase responses to others. When infants were 9 months of age, mothers responded frequently to their babies' simple object exploration (such as when an infant manipulated and fingered a toy), a form of play that was common at this age. When infants were longitudinally followed at 13 and 20 months, they engaged in more sophisticated forms of object play, such as symbolic play (e.g., feeding a doll a bottle). As infants grew in their symbolic play, mothers tuned their responses to this advanced form of play and decreased responding to simple exploration. The shift to symbolic play, therefore, leads to new language experiences. Maternal language during symbolic play is more dense, more diverse, replete with questions, and contains unique forms of reciprocal interaction language (such as mental state terms on the part of parents) to negotiate symbolic transformations ("Let's pretend we're cooking breakfast. What yummy eggs!") (Fekonja, Umek, & Kranjc, 2005; McCune-Nicolich, 1981; Pellegrini, 2009; Quinn, 2016), thereby offering children opportunities to learn new words (Adamson, Bakeman, Deckner, & Nelson, 2014; Hirsh-Pasek et al., 2015a; Hirsh-Pasek et al., 2015b).

Developmental Changes in Gestures Infant developmental change in the use of gestures prompts changes in mothers' gestures. Mothers followed age-related changes in infant gesturing with changes in their own gestures during interactions with infants 1–3 years of age (Rodrigo et al., 2006). Infant–mother correspondence was strongest for deictic gestures (notably points), which increased between infant ages of 12–24 months, and then remained stable from 24 to 36 months. As noted by the authors, mothers matched their means of communicating to that of their infants,

even though mothers had a full repertoire of possibilities at hand. With younger infants, mothers use relatively primitive communicative forms, and as children progress in their communicative repertoires mothers abandon or reduce those forms of communication (Rodrigo et al., 2006). As one example of these social-interaction shifts, as infants moved from frequent use of gestures to primarily using words to communicate between 14 and 24 months, mothers increased their referential responses to infant vocalizations but decreased their responses to infant gestures (Tamis-LeMonda et al., 2013).

Growing a Vocabulary Over the course of the second year, infant vocabulary growth is rapid and impressive, and mothers are attuned to the new words that infants know. Mothers are more likely to respond to novel words spoken by their 2-year-olds than to words that infants have spoken for some time (Masur, 1997). Additionally, as infants grow their vocabularies, they are better able to answer their mothers' questions. Mothers appear to be aware of their infants' changing skills, as seen, for example, in their shift from basic descriptions to increased use of questions with growing infant vocabulary. In a longitudinal study, mothers responded with *simple labels and descriptions* to the vocalizations of their 1-year-olds, but increased their responsive *questions* to their 2-year-olds who were more skilled at language (Bornstein, Tamis-LeMonda, Hahn, & Haynes, 2008). Parental "wh" questions become increasingly important for language development in children's 2nd and 3rd years of life, when children become active conversational partners.

From Concrete to Decontextualized Talk When mothers talk with infants, they almost always focus on the here-and-now, referring to objects and people that are immediately perceptible (e.g., Snow et al., 1976). The words that adults use when addressing infants tend to be concrete (Phillips, 1973), phonologically simple (Ferguson, 1964), and contain many simple labels and descriptors (Tamis-LeMonda et al., 2012), which help novice word learners figure out the topic of conversations. As children advance in their language and cognitive skills, mothers shift from referring to objects and events in the here-and-now to decontextualized forms of language—abstract language that is removed from the immediate context (Rowe, 2013).

From Simple Words to Grammatical Complexity As toddlers grow in their syntactic skills, mothers use increasingly complex grammatical structures. Child-directed speech, particularly to infants and toddlers, contains shorter and simpler sentences, as reflected in mothers mean length of utterance (MLU), fewer subordinate clauses (Longhurst & Stepanich, 1975; Phillips, 1973), and a higher redundancy as reflected in type-token ratios (Phillips, 1973). Fathers also match the complexity of their grammar to the language skills of their infants. Mothers and fathers used fewer words, less grammatically complex language, and less diverse language with less linguistically competent infants than did parents of more linguistically advanced infants (Tamis-LeMonda et al., 2012). Of course, it could be argued that associations between parent and infant grammatical complexity (and other measures of language for that matter) are explained by genetic variance shared

between children and parents. However, adoption studies (Stams, Juffer, & van IJzendoorn, 2002), laboratory manipulations (Goldstein, King, & West, 2003), and interventions that target parenting (e.g., Mendelsohn et al., 2005; Mendelsohn et al., 2007) indicate that associations between parent language and infant language are not solely attributable to heredity.

Developments in Motor Skills

Infants develop rapidly in their motor skills, progressing from simple reflexes to walking across the first two years. Learning to sit independently, crawl, and walk broadens infants' opportunities to engage with objects and people. In turn, changes to infants' interactions with their environments promote development in other domains, notably language (Libertus & Violi, 2016; Walle & Campos, 2014).

Sitting and Manual Skills A variety of significant changes accompany infants' abilities to sit without support and manually explore objects. Sitting is accompanied by changes in the characteristics of vocalizations, perhaps due to a reconfigured vocal tract, expanded lung capacity, and forward tongue position in the oral cavity (Iverson, 2010). Consequently, infant consonant-vowel vocalizations increase, which (as reviewed) are met with increases in mothers' conversational responses (Gros-Louis et al., 2006), thereby promoting language development (Iverson, 2010).

Sitting additionally creates new opportunities for infants to manually explore their environments (Rochat & Goubet, 1995). Around 6–7 months of age, infants can sit without support and reach and play with objects without falling over (Bertenthal & Von Hofsten, 1998). The freeing of the hands for object play and exertion of control over balance allows infants to engage with objects and people in new ways. Infants can hold objects up to caregivers to share, show, and even request help without toppling over (as when a baby bids for help at opening a box). These communicative acts are referred to as protoimperatives and protodeclaratives (Bates, Camaioni, & Volterra, 1976; Slobin & Tomasello, 2005), and are highly salient social bids for attention or assistance (Karasik et al., 2011). Parents are keenly attentive to the manual actions and social bids of their infants, making the sitting, hands-free, exploring infant one who is likely to spark lots of talk about the objects they are touching.

Locomotor Skills The onset of locomotion provides infants with opportunities to access places that had been out of reach when they were merely sitters. Infants can now retrieve distal objects and solicit attention from people who are in the other room (Iverson, 2010). Parents of locomoting infants (compared to pre-locomotor infants of matched ages) reported that infants increased their interactive play, back-and-forth checking with caregivers, displays of affection, and attention to distal events in the environment (Campos et al., 1992), behaviors that relate to the quantity and quality of language parents direct to infants.

Infants' mastery of upright locomotion (specifically, walking) further expands opportunities for social interactions. Upright posture increases the infant's visual field (Kretch, Franchak, & Adolph, 2014), and thus provides a perceptual advantage compared to crawling by allowing infants to continuously monitor changes to the environment as they move (Kretch et al., 2014). The serendipitous benefits of walking are conducive to following adult attention cues, which itself is foundational to language learning, because infants must identify the referents of parent talk (Iverson, 2010). Indeed, walking is accompanied by greater attention to mothers who are talking about objects or events in the environment (Franchak, Kretch, Soska, & Adolph, 2011), the type of informative, referential speech that promotes language learning. Experience with walking relates to initiation of joint engagement with parent (pointing, bringing objects over; gaze following and pointing) and receptive and productive language (Walle, 2016). Walking infants are more likely than crawling infants (again, matched for age) to produce vocalizations and gestures to direct parent's attention to objects (Clearfield, 2011; Clearfield, Osborne, & Mullen, 2008; Karasik et al., 2011).

Walking also allows infants to carry objects to share with others, and to cover more ground at a faster pace than was possible with crawling (Adolph & Tamis-LeMonda, 2014). Walking infants are more likely to access objects located farther away than are crawling infants (Clearfield, 2011; Karasik et al., 2011), and there is a surge in object sharing in walking infants at-risk for autism and those who are typically developing (Srinivasan & Bhat, 2016). Compared to crawlers, who predominantly shared objects with their mothers from stationary positions, walking infants were more likely to share objects with their mothers by walking over to them (Karasik et al., 2011). Differences in the social bids of crawlers (from stationary positions while sitting) and walkers (as moving about) generated different responses in mothers. Specifically, mothers responded to "stationary bids" with noun phrases (e.g., "Book!") but to "moving bids" with predicate phrases (e.g., "Want to read?") (Karasik et al., 2014). Thus, walking not only allows infants to follow adult gaze and actions, but also facilitates shared object interactions, which evoke new language forms that promote learning (Iverson, 2010; Walle, 2016).

Summary

Developments in language and motor skills drastically alter how infants engage with people and objects. As infants progress in play sophistication, grow their vocabularies, and combine words into simple sentences, parents change in the content and complexity of their infant-directed speech. As infants learn to sit, crawl, and walk, their new motor skills allow them to explore near and distant objects and places and carry objects over to other people. The behavioral changes associated with motor development prompt new language forms and functions from parents.

Future Directions

All too often, developmental scientists pay lip service to the active role infants play in learning language. Most research on the social context of language learning quantifies parents' language inputs to infants, with little attention to *when* and *why* parents choose to talk to their babies. Parents and other caregivers are keenly sensitive to what infants are interested in and what they can do. Consequently, the language adults direct to infants is highly dependent on infants' ongoing behaviors and skills. To truly capture the real-time dance between infants and caregivers requires moving beyond "frequencies" of behaviors to understanding the temporal structure of everyday language interactions. An understanding of language learning requires close attention to how, for example, an infant's simple point of a finger can elicit a parent's rich description about the pictures on the page of a book, or how the transition to walking results in new forms of language exchanges. There are invaluable payoffs to time-intensive behavioral coding, in which behaviors of infants and caregivers are "time locked" to one another to understand the cascading effects that infant learning and development have on social experiences. This micro-genetic approach offers a depth of understanding that is otherwise not possible by merely "counting" the speech acts or words a parent directs to the infant. Detailed behavioral coding reveals the temporal structure of interactions—the essence of human communication.

Conclusions

Infants take center stage in learning language. Here, we described three key ways that infants contribute to their own development. First, infants enter the world of language armed with basic learning mechanisms that are foundational to learning words, including capacities to detect social contingencies and statistical regularities. Infants extract statistical regularities in language inputs, which allow them to discern meaningful phonemes; cull words from continuous auditory streams; and connect words to referents in the world. Infants are also able to detect temporal connections among the actions they produce, the perceptual and sensory inputs they experience, and the words they hear.

Second, infants reap serendipitous benefits from the language inputs they elicit through their everyday behaviors. Infant touches, looks, vocalizations, gestures, and object play are catalysts for parents' infant-directed speech and actions. Parents respond to these infant behaviors with rich, multimodal cues to word meaning, which help infants connect words to their referents in the environment. Infants can exploit the richness of socially embedded, multimodal language experiences to discern the meaning of words—that "ball" and "throw" refer to the round bouncy thing they just threw to the ground; that "soap," "splash," and "water" accompany the objects and actions of bathtime; that "juice" and "cheerios" are the staples of breakfast, and so forth.

Lastly, developments in infant language and motor skill expand opportunities for infant learning and are highly salient to parents. Parents respond to infants' developmental achievements by raising the bar of social interactions: They ask more questions, increase their decontextualized talk, and produce more grammatically complex constructions with child age and skill. As infants sit, crawl, and walk, they interact with people and objects in new ways, and parents adjust their language in response to those advances. In short, infants journey through an ever-changing world of communication that is made possible by the quite basic yet highly remarkable developments of everyday behavior.

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