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Language acquisition and language socialization

Penelope Brown and Suzanne Gaskins

8.1 Introduction

Language is one of the defining traits of humans. It rests on a set of uniquely human competencies in social interaction – an instinct for cooperation, an awareness of other minds, abilities to read others’ intentions and coordinate mentally – which together comprise an “interaction engine” (Levinson 2006) that develops in each child during the first year of life (Clark 2001; Tomasello *et al.* 2005). Children all over the world learn the language(s) they are exposed to with remarkable facility, and are fluent – if not mature – speakers by the age of three or four. Along with the language, they learn the cultural practices, attitudes, ways of thinking and feeling and behaving that are embodied in the interactional environment in which they are immersed. Understanding this process of socialization into language and culture is critical to understanding the biological bases, learning, and cross-cultural variability of social interaction, as well as the role of culture more broadly in children’s social, cognitive, and language development.

Studying the process through which this happens has been a preoccupation of scholars in disciplines across the spectrum spanning psychology, linguistics, sociology, and anthropology, with a variety of motivations. For some, the nature of the language capacity itself is the intriguing puzzle, and these researchers – mostly developmental psychologists – tend to describe what they study as the process of *language acquisition*. Work here has diverged into two increasingly irreconcilable theoretical camps, differing profoundly in their views of the nature of language and of mind. One set consists of those adopting Chomsky’s theory of universal grammar (UG), which posits an inbuilt “language acquisition device” enabling children’s language to develop as a process of maturation largely immune to cultural and language variation (e.g., Guasti 2004; Lust 2006). The other set comprises those who adopt a “usage-based” or constructionist theory of language development that rejects the idea of a language acquisition device and insists that language development is a piece-by-piece

achievement governed by statistically reliable aspects of speech to and around small children (the “input”) (Barlow and Kemmer 2000; Tomasello 2003; Behrens 2009). An excellent and balanced assessment of evidence and issues in relation to each of these two positions can be found in Ambridge and Lieven (2011); other useful overviews are Bowerman (1981); Bavin (2009).

More compatible with an anthropological perspective are approaches where the central questions are not about the language capacity and its relation to mind, but on how the child as a novice embedded in a culturally constituted environment through social interaction gradually develops both communicative competence and sociocultural membership. A first formulation of this approach in the 1960s came out of the Gumperz and Hymes (1964) program for the *ethnography of communication*, studying communicative competence in different cultural settings. Early work based on a field manual for guiding cross-cultural research (Slobin 1967) produced doctoral dissertations reporting on child language in Mexico (Stross 1969), Kenya (Blount 1969), Samoa (Kernan 1969), and California (Mitchell-Kernan 1969).

In the 1970s and 1980s two developments added to the burgeoning stream of child language research. Work in *linguistic pragmatics* investigated children’s developing pragmatic skills (e.g., Bates 1976; Ochs and Schieffelin 1979). At the same time, the paradigm of *language socialization* was articulated by anthropologists Elinor Ochs and Bambi Schieffelin, based on their fieldwork in Papua New Guinea and Samoa, respectively. Their work looked not only at the exposure to and acquisition by children of pragmatic meaning but also the role of speech as a conveyer of cultural information, especially in everyday interactions. Schieffelin and Ochs (1986a) argue for a comparative approach to the process of socialization into language through language and its use in interaction. The goal is to examine particular interactional practices in different cultural settings, to show how these proceed in situated interaction and how they influence both the development of children’s communicative skills and their ability to think, feel, act, and interact like others in their social world. A snapshot of the potential contributions of the field was provided by a short article (Ochs and Schieffelin 1984), which tells “three developmental stories” illustrating why language socialization might be important to study across cultures.

While the field of language socialization in anthropology has been heavily influenced by Ochs and Schieffelin and their students and colleagues, it has multiple roots across disciplines. At about the same time that Ochs and Schieffelin were working on their ethnographies of small-scale societies, Heath (1983) considered language as a powerful socialization tool that varied across class and ethnicity in the southern United States, with important influences in education, and Miller (1982) was describing language socialization practices in lower-class homes in

Baltimore. Language socialization has matured over the past three decades into a truly cross-disciplinary research endeavor. Beyond its ability to address basic questions about language practices and socialization, it is used in a wide range of applied fields, most notably education in general and second-language learning in particular (see Duff and Hornberger 2008). There have been a number of significant reviews of the field that, from different perspectives, go into much more detail about the field's foundations and current issues than is possible here (e.g., Schieffelin and Ochs 1986a, b; Garrett and Barquedano-López 2002; Kulick and Schieffelin 2004; Ochs and Schieffelin 2008; Sterponi 2010; Duranti *et al.* 2011).

A distinct but complementary approach developed in work in the sociologically inspired framework of conversation analysis, which, while not for the most part explicitly comparative, is committed to the study of social interaction as social process via close examination of naturally occurring talk-in-interaction (Sidnell 2009); child language studies in this framework include Wootton (1997); Kidwell (2005).

These three independent but inter-communicating schools all take actual language use in its natural context as the data to be explained, and all have very different views of language from that of UG theorists, emphasizing language use (performance) and language as action, and interaction, rather than language as a capacity of individual human minds.

A rather different interest in child language comes from the insights it can provide into the evolution of language, and human evolution in general. The enormous variability of human languages (Evans and Levinson 2009) provides a major challenge to UG theorists. Suggestions for the evolution of language derive from recent developments in evolutionary biology and evolutionary anthropology (Sperber 1996, Whitehouse 2001; Chater and Christiansen 2010), and from comparative studies of human vs. ape cognition and communication (Tomasello 1999, 2008; Blake 2000), looking to apes and children to pinpoint aspects of the precursors to language. Other research focuses on specific aspects of the “interaction engine” – universals of conversational turn-taking (Stivers *et al.* 2009), mechanisms for repairing misunderstandings (Hayashi *et al.* 2013), and the semiotics of gesture (Kita 2003, 2009; Liszkowski *et al.* 2012). Informed by new views of what development consists of – a process of pruning neural connections (Whitehouse 2001) – this work provides provocative suggestions about the nature and origins of language, cooperation, and human cognition.

Given this diversity of disciplines, theoretical interests, and commitments, there is an immense literature on child language and its development. Here we take an interdisciplinary, international perspective, focusing on studies with cross-linguistic and culturally embedded approaches to how children learn language and culture. We provide a selective review emphasizing a number of themes: effects of variable language structures and of variable interactional styles on the acquisition

of language, socialization through language into culturally shaped ways of thinking and feeling, and some methodological considerations in studying child language socialization.

8.2 The cultural process of acquiring a language

A child's task in learning a first language has several distinct aspects. She has to create phonological categories, in order to know what sound differences affect meaning differences in the speech around her. She has to segment the speech stream into recognizably recurring sound chunks (words, morphemes), map these sound sequences onto meanings, and create syntactic structures that allow her to say anything, including things she has never heard uttered. She must also do some social learning: she must learn to coordinate interaction with another, jointly attend with an interlocutor to a third thing (object, event), and understand that others have minds and intentions like her own and that the words people utter "refer" to things in the world (Carpenter *et al.* 1998; Tomasello 1999; Masataka 2003).

How do children achieve this? Do they use the same strategies and pursue the same timetable regardless of the structure of their language and the cultural setting? Research addressing these questions has boomed over the past thirty years, and much of it is organized around one core issue: How much is language an innate capacity? How much – and how – is its development shaped by the social and interactional environment of the learner? Proposed answers to these questions have evolved over these thirty years in response to evidence from children learning different languages. There are some 7,000 languages currently spoken in the world, and they vary enormously in both grammatical and semantic structure (Evans and Levinson 2009). Cultural patterns of interaction with children and cultural attitudes towards children as social beings also vary widely in different societies and indeed within subcultural groups within a society (LeVine and New 2008, Montgomery 2008). In this section we discuss a range of evidence bearing on how both language typology and cultural variations in caregiver–child interaction make a difference to children's language acquisition. (See Slobin and Bowerman 2007, Stoll 2009, Bowerman 2011, for more detailed discussions.)

8.2.1 Effects of language structure on language learning

Comparative evidence of the characteristics of early child language comes very largely from children learning Indo-European languages. There have been relatively few longitudinal studies of children's acquisition of non-European languages; these are mainly drawn from languages spoken in

large-scale industrialized societies, for example Japanese, Korean, Mandarin Chinese, Hindi. There are even fewer studies of language learning in indigenous small-scale societies. These include work by Allen (1996) on Inuktitut (northern Quebec) and Fortescue and Olsen (1992) on Western Greenlandic, Pye (1992), Pye *et al.* (2007), Pfeiler (2007), Brown *et al.* (2013), and Pye and Pfeiler (2013) on Mayan and other Mesoamerican languages of Mexico and Guatemala, Demuth (1992; 2003) on Sesotho (South Africa), Kernan (1969) and Ochs (1988) on Samoan, Bavin (1992) on Warlpiri (Australia), Stoll *et al.* (2012) and Lieven *et al.* (in prep.) on Chintang (Nepal), and several on languages of Papua New Guinea, including Schieffelin (1990) on Kaluli, Kulick (1992) on Taiap (Gapun), and Rumsey *et al.* (2013) on Ku Waru. One centralized source summarizes the results of some of this work: Slobin's edited volumes (1985a,b, 1992a, 1997a,b) are an indispensable reference for what is known about the acquisition of widely different types of languages.

Here we provide examples of the kinds of language differences that have had an influence on universalist theories of language learning.

8.2.1.1 Phonological development

Work on phonological development suggests a strong biological component to the process. Infants' prelinguistic vocal development goes through an ordered set of stages, which look quite similar across languages (Menn and Stoel-Gammon 1996): attuning their auditory system to the sounds of the ambient language, producing coos and burbles coordinated with sounds produced by a caregiver, and babbling in identifiable CV syllables and intonation patterns. By the age of six months infants tune in to the sounds of the language they are exposed to, losing their inborn sensitivity to discriminate sounds that the language does not treat as separate phonemes (Kuhl 2009). Babbling begins around six months, and by the time first words are produced encompasses many of the syllable sounds of the ambient language. An early proposal by Jakobson (1968[1941]) made the universalist claim that the child's inventory of phonemic oppositions develops according to strict rules governed by the same universal hierarchy of features that organizes the phonological structure of adult languages. However, cross-linguistic empirical work on the acquisition of phonology has shown that children deviate in many ways from the universals Jakobson predicted. For example, there is no sharp discontinuity between babbling and early word learning, there is a great deal of individual variation rather than a fixed order for phonemes, and some phonological patterns rare in the language of adults are frequent in child language (Bowerman 2011: 595).

This conclusion is apparent from comparative work just on Indo-European languages. But we do not know the effect of very complex phonological systems on this process, or on the child's later language learning. Some languages have extremely complex sound systems, for

example Yéli Dnye, spoken on Rossel Island off the coast of Papua New Guinea, has ninety phonemes including many multiply articulated consonants. Other languages have sounds rare in the world's languages, like the clicks of the Khoisan languages of southern Africa. We simply don't know how children approach these complex systems or whether they pose major difficulties for their learners.

8.2.1.2 First words

When it comes to children's first words, we know considerably more. Children start producing recognizable words sometime after their first birthday, but what those words sound like depends partly on the child's individual style – some children start by producing whole unanalyzed chunks, others single words – and partly on the language type. An isolating language like English favors single-word utterances with no grammatical morphemes, but children learning an agglutinative language like Turkish can have productive morphology even at the one-word stage. Children learning a polysynthetic language like Inuktitut often produce chunks of a long multi-morphemic word. Similarly, the phonological pattern of the language as stress-timed or syllable-timed makes a difference to the form of first words (Peters 1997).

Another issue raised by cross-linguistic variability is the status of nouns vs. verbs in children's early vocabulary. English-learning children start speaking with words that they use as object labels (nouns in adult speech), directional particles (e.g., “up”), deictics (“this”) and adverbials (“more”). Once they have about fifty words, the vocabulary acquisition of many of them suddenly takes off with a “noun-spurt,” adding nouns at a rapid rate while relying on a handful of verbs for several months (Bornstein *et al.* 2004). This “noun bias” pattern led Gentner (1982; Gentner and Boroditsky 2001) to propose a “natural categories” explanation for the primacy of nouns in early child speech: the concrete objects denoted by nouns are for the most part highly individuable, well bounded, and easily conceptualized, while verbs label relational notions connecting participants and actions or events (e.g., someone does something to something else) which are harder to grasp and indeed cross-linguistically more variable.

This position has been challenged by languages which appear to be verb-friendly for learners: e.g., Korean, Mandarin, and some Mayan languages. Children learning these languages do not show a noun spurt, but acquire verbs and nouns at an equal rate from very early on (Choi and Gopnik 1995, Tardif 1996; Choi 1997; Brown 1998a; de León 1999; Tardif *et al.* 2008). Both language typology (e.g., word order, and the possibility and frequency of argument-drop) and interactional style (especially interactional emphasis on activities rather than on object labeling) contribute to the likelihood of children finding a language to be verb-friendly.

8.2.1.3 Early morphology

Much child language research has focused on grammatical morphemes, which of course vary radically across languages. The first systematic comparison of their acquisition was by Roger Brown (1973), who studied the acquisition of fourteen early acquired morphemes in three children acquiring English, characterized the initial stages of language acquisition, and found that across children there was a highly stable order of acquisition of these morphemes, and that semantic and grammatical complexity, but not frequency in parental speech, predicted this order.

Brown's work set the pattern for language acquisition research and motivated others to link cross-linguistic patterns with developmental patterns in acquisition. Slobin's coordinated cross-linguistic study of nearly thirty languages (Slobin 1985a,b, 1992a, 1997a,b) is the most comprehensive assessment of the effects of different language structures on language learning to date. On the basis of this comparative data, Slobin (1985c) initially proposed that cognitive maturation drives language acquisition and accounts for children's "Basic Child Grammar" that grows out of two tendencies: (1) children follow "Operating Principles" (OPs) about surface forms of utterances and semantic coherence, allowing them to break into language, and (2) children orient to a core set of meanings that are "privileged" for grammatical forms.

Over the next decades, comparative work showed that there is no clear set of universally privileged grammatical meanings, and that children are highly sensitive to how grammatical meanings are semantically organized in the language they are learning. This motivated Slobin (2001) to retract his original claim, arguing instead that frequency and psycholinguistic processes in discourse can account for the child language patterns observed. He concluded further that the meanings of grammatical morphemes do not reflect cognitive predispositions, which instead are shaped by the psycholinguistic processes operating among fluent speakers.

Summing up the cross-linguistic findings, Slobin (1992b: 10–11) argued for the interplay of cognitive development (e.g., maturing "processing span" and short-term memory) and linguistic development over time. The timing of the acquisition of morphological forms is tied to their conceptual content – for example, early past tenses tend to have perfective/telic/resultative meanings, early locatives express basic notions of containment and support. When the range of grammatical options increases around the age of 3 to 4, errors increase, including paradigm simplification and over-regularization of irregulars (e.g., English *buyed* instead of *bought*) and double marking of morphemes (e.g., with both of two allophones). These errors reveal children's creative mental activity in formulating a grammar, going well beyond what they hear in input speech. Where local cues are clear, children are good at acquiring language-specific details like noun gender, noun-class prefixes, obligatory morpheme orders, and clear phonological cues to

grammatical categories (e.g., Mandarin tone, Warlpiri vowel harmony). Typological patterning helps the child to home in on language-specific patterns (e.g., prefixing in Bantu languages, and the consonant frame plus V alternations of Hebrew).

This last conclusion is supported by a range of cross-linguistic data showing that constructions deemed difficult based on English child data appear early in child speech in some languages, for example early passives in Inuktitut (Allen and Crago 1996) and Sesotho (Demuth *et al.* 2010). The same is true for “applicative” constructions that add an argument: Demuth (1998) found that 2- to 3-year-old Sesotho children use the applicative with a full range of verb classes and demonstrate appropriate semantic knowledge of the construction (see also Brown 2007, for early Mayan ditransitives; Clark and Kelly 2006, for other constructions).

One difficulty of comparing morpheme acquisition across unrelated languages is that so many factors differ – sounds, morpheme order, meaning – it is hard to establish which ones have a crucial influence in constraining the acquisition order of grammatical morphemes. Evidence from studies *within* a language family – for example the Scandinavian languages (Strömqvist *et al.* 1995), or the Mayan languages (Pye *et al.* 2007; Brown *et al.* 2013) – allows much more detailed comparison of cognate affixes across the languages. These studies have shown that prosodic salience explains a large part of the variability in children’s morpheme acquisition in closely related languages.

8.2.1.4 Semantics

Early analyses of the semantics of children’s first utterances suggested considerable universality. First utterances in many different languages tend to express a limited set of notions relevant to early childhood experience: notions of action, agency, location, possession, and existence, recurrence, nonexistence, and disappearance of objects (Bowerman 2011). Here again the theoretical preference was cognition first, with the view that children first get concepts, then attach words to them. Yet over the years Bowerman and her colleagues (Choi and Bowerman 1991; Bowerman 1996; Choi *et al.* 1999; Bowerman and Choi 2001; Slobin *et al.* 2011) have shown clearly, for the spatial domain, that children very early tune in to the language-specific semantics of the words they use, well before the age of 2. Again, children’s emergent category errors show that children are *active* learners, constructing a language system, not just parroted back what they hear. Their developmental progressions and error patterns are revealing evidence of the human blueprint for language (Bowerman 2011: 592).

8.2.1.5 Grammar

Much of the debate about what is innate vs. what must be learned has focused on the syntax/semantics interface, and how children learn to mark

the arguments of verbs (agents, patients, recipients, etc.). Languages do this in one or some combinations of three basic ways: word order (as in English “John saw Mary” vs. “Mary saw John”), case marking on nouns (as in Turkish), and agreement marking on verbs (as in subject-verb agreement in Romance languages). Children learn to mark agent and patient roles with these markers generally by the end of their third year; the speed is influenced by the frequency and regularity of the markers, their distributional and semantic transparency, and how they relate to other linguistic cues (Lieven and Stoll 2009).

But how do children break into the system that links sounds with grammatical roles to establish a phrase-structure for an utterance? How do they decide which word or morpheme in the segmented speech stream instantiates the different syntactic functions (subject, object) and categories (N, V)? Two proposals have been made for innate knowledge which helps children to “bootstrap” into syntax/semantics mapping. One is Pinker’s (1984) semantic bootstrapping hypothesis, which argues that meaning can predict syntax. Children are credited with innate knowledge of word classes and syntactic relations (N, V, NP, VP, and subject, object) and of rules that link thematic roles like agent and patient to syntactic functions such as subject and direct object, respectively. This helps guide the child to establish the basic word order of her language and the morphology associated with verbs vs. that for nouns, which in turn then can help the child identify instances of N, V, subject, object, even in those cases when the canonical semantics are absent. A related process can help children acquire subcategorization frames of verbs.

An alternative proposal is Gleitman’s (1990) syntactic bootstrapping hypothesis, with syntax used to predict meaning. Assuming that syntax and semantics are systematically linked such that a verb’s meaning projects how many arguments, and what type of arguments, the verb has, then children should be able to predict the meaning of a novel verb by noticing the different syntactic frames it occurs in. This narrowing of the hypothesis space allows the child to home in on the verb’s more precise meaning by observing its use in different contexts. There is considerable evidence that young learners of English can indeed use syntax to guess a new verb’s meaning (Fisher and Gleitman 2002 provide an overview), but it is not at all clear whether the linking information they draw on is innate or learned (Bowerman and Brown 2008b).

Both bootstrapping proposals require universal consistencies in the way languages link semantic functions to syntactic categories and relations. Several kinds of evidence cast doubt on this assumption. In a study based on detailed diary data of two English-learning children, Bowerman found that in their early productions the children did not match Pinker’s expectations. They actually had more difficulty with verbs with canonical linking patterns like “hit” or “break” that according to Pinker should be easy to link, than with those that by Pinker’s semantic bootstrapping account

should be harder (“stay,” “have”). There was also no evidence in the child data that correctly ordered strings for prototypical agent–patient relationships preceded those expressing other kinds of argument relations (e.g., theme-locative/source/goal) in child speech (Bowerman 1990, 2002: 525). Further, late errors that seem to be due to over-regularizations of statistically predominant linking patterns (e.g., “Can I fill some salt into the bear?”; Bowerman 2002: 524) suggest that these linking patterns are learned from the patterns in the input.

Non-Indo-European languages raise additional problems for semantic bootstrapping. Not all languages are readily analyzable as having a grammatical role of subject. Another difficulty is raised by ergative languages, which have a different pattern of linking from that of the familiar English “accusative” pattern with subjects of both transitive and intransitive sentences treated the same (e.g., receiving the same case marking). In ergative languages, the subject of an intransitive verb is treated like the object of a transitive verb, with the subject of a transitive verb receiving distinct treatment. Some languages are also syntactically ergative, with particular syntactic processes tied to the same collapsing of intransitive subject and transitive object arguments (van Valin 1992). Both types violate the link between agents and subjects, and hence present problems for bootstrapping theories. Cross-linguistic comparison of children learning some ten languages with ergative morphology has shown that ergative and accusative morphology are equally easy to learn and virtually error-free – children learning ergative languages do not extend ergative morphology to agentive intransitive subjects or make other errors which would be expected if they were assuming canonical linking (Pye 1990; Slobin 1992a; van Valin 1992; Allen 1996; Narasimhan 2005; Bavin and Stoll 2013).

Other difficulties are raised by a cross-linguistic project that examined verb argument structure and its implications for acquisition in fourteen languages (Bowerman and Brown 2008a), and showed that many languages do not have the reliable syntax/semantics mapping required for these bootstrapping proposals. For example, Wilkins (2008) demonstrates that the central Australian Aboriginal language Arrernte does not display the expected pattern that verbs of object transfer (e.g., “put”) have different argument structures from verbs of perception (e.g., “see”). Arrernte has a three-argument frame for the verbs meaning both “see” and “put.” Danziger (2008) shows that Mopan Maya does not display the predicted link between action word semantics and verbs – many single-participant action concepts like “run,” “jump,” “yell,” are encoded as nouns (e.g., “My running continues,” to mean “I run”). And Essegbey (2008) shows that the contrast between transitive and intransitive verbs in the Ghanaian language Ewe does not always correspond to one- vs. two-participant events; instead it reflects a single participant’s degree of control over the action, with one argument indicating lack of control, two indicating control.

Such deviations from the patterns predicted by semantic and syntactic bootstrapping hypotheses undermine their applicability and suggest, instead, that linking regularities are gradually learned from the input, with neither semantic nor syntactic information unilaterally predicting the other (Bowerman 2011: 604).

8.2.1.6 Pragmatics, language usage

One realm in which there appears to be evidence for universal patterning is in conveying the information structure of an utterance – what is assumed in the context, what is made explicit. Based on Du Bois's (1987) discovery of a cross-linguistically general Preferred Argument Structure (PAS) pattern in adult speech, with agent arguments being assumed (and hence their arguments dropped or represented with a pronoun) much more frequently than those for objects and intransitive subjects, a number of child language researchers have looked at argument expression in non-European languages. Studies of PAS in child speech in Japanese (Clancy 1985), in Korean (Clancy 1993, 2003; Kim 1997), in Inuktitut (Allen and Schroder 2003), in Hindi (Narasimhan *et al.* 2005), and in Tzeltal Maya (Brown 2008) all found children following this PAS pattern by the age of 3 or 4, suggesting that already at this age children are sensitive to what their interlocutor can be taken to know about what they are saying. Language-specific factors are revealed in the contextual details constraining this pattern – for example verb-specific semantics in Tzeltal (Brown 2008), interacting contextual factors in Inuktitut (Allen 2008).

In another domain, a large-scale cross-linguistic study of narrative styles (Berman and Slobin 1994; Strömquist and Verhoeven 2004) revealed the early influence of language-specific features on children's structuring of events in narratives. In over twenty languages children related the story depicted in Mercer Meyer's (1969) "Frog, where are you?" picture book, and their motion event descriptions were systematically compared. The findings are clear: children as young as 3 have already tuned in to language-specific ways of expressing the path in motion events – as "verb framed" (where the verb expresses the path, e.g., "he entered"), or "satellite framed" (where a satellite expresses the path, as in "he went in") (Talmy 1985). The conclusion is that languages have an effect on how children conceptualize and express events, revealing "thinking for speaking" (Slobin 1996) by age 3.

In short, cross-linguistic acquisition research over the past three decades has produced ample evidence for the influence of specific language features – in phonology, morphology, semantics, and syntax – on children's learning of those languages. This prompted Slobin (1996) to propose a typological bootstrapping hypothesis: if a language presents a pattern consistently and clearly, children will tune in early to that pattern, regardless of how the analogous phenomena are structured in other languages. An alternative perspective is suggested by the typological preference

hypothesis (Gentner and Bowerman 2009), which proposes that the frequency of a pattern in the world's languages relates to children's ease of learning the pattern. Supporting evidence comes from the acquisition of spatial prepositions in two closely related languages (English, Dutch); Dutch has a typologically rare distinction in the categorizing of ON relations (contact/support), with one preposition (*op*) for canonical support from below and adhesion relations, a second preposition (*aan*) for situations of hanging and attachment, and a third (*om*) for situations of encirclement with contact. Bowerman and Gentner found that, indeed, Dutch children had more difficulty than English children in learning to express these semantic relations. This suggests that children are more predisposed toward some ways of categorizing space than others, and that cognition as well as language plays a role in children's semantic acquisition.

The comparative work reviewed here makes it clear that the theoretical focus on universals of language learning has led to unwarranted assumptions about the nature of language acquisition based solely on English and closely related languages. English is not a typical language in many ways, and the cultural contexts characteristic of middle-class Americans are certainly not typical of language learners in most of the world. Both biology and input influence language learning, and they interact in complex ways in the first few years of language development.

8.2.2 Effects of input and interaction

One of the great contributions of work on language socialization has been to document in detail the many kinds of differences in social interaction with small children, and the many different attitudes to childhood and childrearing, that occur around the world (e.g., Schieffelin and Ochs 1986b; Duranti *et al.* 2011). Childhood researchers in other disciplines have also produced evidence for cultural diversity in childrearing patterns and "input" or "child-directed" speech (CDS) (see e.g., Snow and Ferguson 1977; Snow 1993; Lieven 1994; Harkness and Super 1996; Blum-Kulka and Snow 2002; Gaskins 2006). There is variation in the amount of interaction with infants, the positioning of infants as interlocutors whose "utterances" are taken to be intentional communications (Ochs and Schieffelin 1984), amount of eye contact (Brown 2011), turn-taking practices (Takada 2005), and the kinds of participant structures into which infants are drawn (de León 1998, 2011), as well as in interlocutors' tendency to respond to the child's initiatives and for example to label the objects that infants point to (Brown 2011). This research makes it clear that the "child-centered" interaction style typical of middle-class American families is not present in many societies, where interaction is more "situation centered," with children being expected to fit into the activities of adults around them rather than being catered to in a child-focused way (Ochs and Schieffelin 1984).

The evidence that interactional practices with infants widely differ and are culturally shaped by beliefs about what infants need and what they can understand at different ages has challenged certain claims of developmental psychologists that there are universals in childhood experiences which are crucial to children's development of language. Here we review a few of these challenges.

8.2.2.1 Interactional style and Child-Directed Speech (CDS) with infants and small children

In response to UG claims about an innate Language Acquisition Device, several theorists have made the counter claim that children enter into language learning through interaction with others, highlighting in particular face-to-face interaction, a simplified baby-talk register (sometimes called "motherese"), baby games like patty cake that teach turn-taking and sequencing, and the use of direct address and eye contact as a way of securing the child's attention (Tomasello 1999, 2003; Masataka 2003; Gergely and Csibra 2006).

Yet studies of socialization have shown that, for many cultures, these strategies do not characterize caregiver-infant interaction, particularly in the first year of life. Face-to-face interaction with primary caregivers is much less common in cultures where children spend the day strapped on the back or held outward to engage with multiple interlocutors in addition to the primary caretaker (Martini and Kirkpatrick 1981; de León 1998). Simplified registers are not used universally in conversations with children (Pye 1986; Schieffelin 1990). Simple games are not always taught to children. And eye contact and direct address is in some cultures forbidden or discouraged (LeVine *et al.* 1996). In fact, in many cultures, until they start speaking children are not considered conversational partners. And in every case, children learn to talk.

Research on Western infants' development has also established a set of important developmental milestones that occur, beginning soon before the age of 12 months: babies reliably look where adults are looking, they use adults as social reference points (gazing at them to check what to do in uncertain situations), they act on objects like adults do, and they actively direct adult attention through indicative gestures and pointing (Carpenter *et al.* 1998). All of these are claimed to be essential prerequisites for coordinated interaction and later for referential communication.

To the limited extent that these developmental processes have been studied cross-culturally, they appear to follow a similar time course in the first year. In particular, the process of coming into joint attention with someone over a third object or event (the Referential Triangle, Tomasello 1999) also looks remarkably similar in different cultures, including those where interaction with young infants is minimal (Brown 2011; Callaghan *et al.* 2011; Liszkowski *et al.* 2012). That is, in radically different cultures infants by around the age of 12 months draw others into

joint attention by index-finger pointing and uttering something like “ee.” This has been taken as support for the view that these early developments necessary for human social interaction and language learning are part of our biological endowment, part of the “interaction engine” (Levinson 2006) that underlies our human communicative abilities.

How these new capacities get expressed in the second year of life and beyond is not as well documented, but, like caregiver behavior, there is evidence that children’s patterns of social interaction vary widely across cultures. Perhaps the best studied example of the cultural expression of early communicative capacity is pointing. Yet the frequency with which small children point to draw an interlocutor into joint attention varies radically in different cultures, and the interactional consequences – the interlocutor’s response (if any) – also differs (Brown 2011; Salomo and Liszkowski 2012). Very little infancy research has examined the contextualized sequential details of naturally occurring infant-caregiver interactions during the first year of life, nor have developmentalists done the careful comparative study of joint attention in interaction necessary to establish whether the processes observed in Western societies are visible in interactions with infants elsewhere.

Resources for drawing an interlocutor’s attention everywhere include speech, gaze, body touching and postures, pointing gestures, and other actions, but it is well known that there are cross-cultural differences in adult deployment of these resources so we cannot assume that they are deployed in comparable ways with infants everywhere. To pin down the biologically driven vs. culturally shaped aspects of early social interaction we need a more qualitative and comparative approach, one that can provide evidence of the interactional processes through which infants come to coordinate attention in interaction in different cultural settings.

8.2.2.2 Child-directed vs. overheard speech

The developmentalists’ assumption of child-centered and face-to-face interaction being the norm raises another issue: what counts as relevant input to the child? It has been shown that the amount and quality of “input” language – usually taken to be speech directly addressed to the child while caregiver and child are in joint attention – influences the child’s early language and is directly correlated with vocabulary level at age 2;0 (Huttenlocher *et al.* 1991, 2010; Hoff 2003). A current debate concerns not just the amount of input but also its nature as directed to the child vs. other-directed (or “overheard”) speech. In societies where small children are not often directly addressed, can listening to other people talking around them give them a comparable kind of input? The finding that differences in the quantity and quality of child-directed speech in different families predict the children’s lexical development is in conflict with research findings in societies where small children are not often spoken to, yet children in these communities reach major milestones of

language development at ages that are comparable with those of Western children (e.g., Crago *et al.* 1997, on Inuktitut children).

A possible resolution of this conundrum is suggested by arguments that, in a number of such societies – for example, Mayans (Chavajay and Rogoff 1999; Rogoff *et al.* 1993, 2003, 2007; Rogoff 2003; Gaskins and Paradise 2010), Samoans (Ochs 1988), and Kaluli (Schieffelin 1990) – infants are socialized from early on to attend keenly to what is going on all around them, rather than focusing intently on one activity. Such infants may pick up word meanings from hearing others use words, not necessarily in joint attention with them. We might then predict they would be attuned to attend to others' language and interactions, and be able to profit from overheard speech in ways unlike those of infants in societies where child-centered face-to-face interactions are the norm.

Initial results from research into the different efficacy of child-directed vs. overheard speech has produced mixed results. Some studies (e.g., Akhtar *et al.* 2001) found that 2-year-old children are equally good at learning words from overheard and directly addressed speech. Other studies have found that child-directed speech correlates with later vocabulary but overheard speech does not (for Spanish-speaking low SES families, see Weisleder and Fernald, *in press*; for Yucatec Mayan vs. American families, see Shneidman and Goldin-Meadow 2012; Shneidman *et al.*, 2012). However, these studies treat all speech not directly addressed to the child as “overheard,” ignoring the fact that much of that speech (e.g., of adults on the phone, or adult–adult conversations) is irrelevant to the child who may well not be actually “overhearing” it. Such studies need to have more sensitive assessments of what the child is potentially attending to (actually overhearing) and more subtle analysis of the target vocabulary set in the different settings, before this issue will be clarified.

Establishing that these kinds of differences make a difference, or not, to the language-learning process is greatly complicated by the fact that there are very large individual differences in children's rate and pattern of language acquisition (Bates *et al.* 1988; Snow 1993; Lieven 1997). With small sample sizes it is difficult to establish that any observed differences in language learning are due to cross-cultural differences in interactional style, amount or nature of input speech, as opposed to the normal pattern of individual variation. More and larger samples of child language data than have hitherto been feasible need to be obtained, in different cultural settings, in order for any cultural-linguistic differences to stand out from the background of individual differences.

8.2.2.3 Situational variation

A third kind of difference in the contexts for children's language learning arises in every cultural setting: there are different contexts requiring different kinds of language usage, speech appropriate to particular settings (e.g., home vs. church vs. school) or to particular kinds of

relationships (e.g., to mother vs. granny vs. friends vs. the doctor or school-teacher), and children have to learn to adapt their developing speech skills to the setting. The range of such contexts and their requirements varies enormously: in some cultural contexts this involves learning more than one language, in others learning an honorific register, in others particular kinds of interactional routines. Cultural expectations differ in how, and at what age, children are expected to show sensitivity to this kind of contextual variability.

There is relatively little work demonstrating effects of these kinds of situational variations on first-language learning (for bilingual learning see Pears 2010; for honorifics see Kim 1997 for Korean, Odden 2011 for Samoan). There may be effects of particular conversational styles: Brown (1998b), for example, argues that the Tzeltal Maya conversational practice of repeating part of the prior utterance – usually the verb – as a confirmatory response to it creates conditions that foreground the structure of the verb, helping small children to segment the verb root from surrounding material. The same kind of highlighting of the verb may occur in a different but comparable practice documented in Turkish child-caregiver interaction: caregivers express communicative intentions in multiple ways, using “variation sets” to rephrase them across turns (Küntay and Slobin 1996). Brown (2002) suggests further that the Tzeltal Maya routine practice of fake threats or lies (e.g., “Don’t do that or I’ll take you for an injection”) – a widespread feature of caregiving in different cultures – may give Tzeltal children early access to the idea that utterances are not necessarily accurate descriptions of the world, and perhaps help them to an early recognition of indirect speech acts, lying, mistaken beliefs, and “theory of mind.”

To date, these kinds of observations are only suggestive. More work is needed to pin down specific kinds of interaction patterns and input patterns to the particular effects they can be shown to have on language learning. One important goal is to identify recurring types of language socialization variables and create a typology of language socialization styles with predictions for their effects on vocabulary or on grammatical development.

We have reviewed two kinds of differences in the environments in which children learn language – differences in the language they are learning and differences in the input speech they hear around them – and considered their potential impact on language acquisition. We turn now to focus on how language use in interaction in a particular cultural setting socializes children into the local patterns and habits of speaking, of interacting, of thinking, and of feeling.

8.3 Socialization through language into the rest of culture

Socialization is a broad term used by various disciplines with slightly different emphases, but Maccoby’s definition (2007: 13) would probably be

accepted by most: “the process whereby naïve individuals are taught the skills, behavior patterns, values and motivations needed for competent functioning in the culture.” Grusec and Hastings’ definition in the same volume (2007: 1) emphasizes the active role of the learner (see below): “the way in which individuals are assisted in becoming members of one or more social groups,” which involves “a variety of outcomes, including the acquisition of rules, roles, standards, and values across the social, emotional, cognitive and personal domains.”

The field of language socialization asserts the centrality of language in this process. Its contributions to the study of socialization are substantial, but it often fails to be in dialogue with research on socialization that does not focus on language and talk in particular. In this section, we review the field’s contributions to understanding the process of socialization through language into the rest of culture. However, we argue that there is value in distinguishing two distinct kinds of language socialization into a culturally specific worldview: *socialization through mastering language forms* and *socialization through participating in interaction*. The first of these is a more limited claim about how the internalization of specific language forms by becoming a speaker of a language leads to particular understandings; the second is a more general claim about the role of interaction in the socialization process and is the area that most closely parallels the socialization literature from other fields.

8.3.1 Socialization through mastering language forms

An inherent consequence of becoming competent speakers is being socialized in the values and practices of the culture itself, since cultural information about social roles, relationships, hierarchy, knowledge ownership, etc., is often indexed by the forms (e.g., lexicon and grammar) and uses of language (e.g., deictics, honorifics, address forms, and evidentials). Ochs (1988: 2-3) makes this central claim at the beginning of her book on Samoan language socialization: “Many formal and functional features of discourse carry sociocultural information, including phonological and morphosyntactic constructions, the lexicon, speech-act types, conversational sequencing, genres, interruptions, overlaps, gaps, and turn length. In other words, part of the meaning of grammatical and conversational structures is sociocultural.”

The causal order of the effect of socialization is important here: rather than claiming that in order to be competent speakers of any language, children must have first internalized the full range of cultural meanings where the language is spoken, the claim is that cultural meanings are internalized *through becoming competent speakers*. This perspective echoes the claim of both Sapir (1949) and Whorf (1956), commonly known as *linguistic relativity*, that speakers of a particular language hold a common world view and patterns of habitual thought that have been shaped by that

language (Lucy 1992a; Levinson 2012). In this sense, language – especially as a key component in interaction – can be thought of as a developmental *leading edge* of cultural understanding (Vygotsky 1978). As children master rules of grammar and discourse required for interaction, they must also construct the cultural meanings embedded in and indexed by these rules of language.

The claim about linguistic relativity being an important component of language socialization is central to the theory, and the evidence for the effects of language on thought in adults has grown since the field was founded. Unfortunately, there is still little evidence that demonstrates the developmental trajectory of such effects, but two examples demonstrate the promise of this area of research. Brown and Levinson (Brown and Levinson 1993, Levinson 2003) showed that Tzeltal Maya adults use an absolute (“geocentric”) linguistic system of spatial reckoning. On a number of nonlinguistic tasks, Tzeltal adults consistently give responses in line with their absolute spatial system. Brown and Levinson also showed (2000, 2009) that Tzeltal children show early use of the absolute linguistic system of spatial language and display evidence for use of this absolute system in novel contexts by age 4–5. (Since they were tested in their home environments – with environmental cues to where “uphill/south and downhill/north” are, it is difficult to determine whether they had generalized an absolute system or simply learned to apply it in their home environment.) And Lucy (1992b) showed for adult speakers of Yucatec Maya and English that their language’s treatment of grammatical number (+/- plural and +/- numeral classifiers) influenced how they responded on related nonverbal tasks. Subsequently, Lucy and Gaskins (2001, 2003) showed that children gave similar language-organized responses by age 9, but not before, even though they had mastered grammatical markings of number in their talk much earlier. Miller and Hoogstra (1992) have argued for the developmental study of “functional linguistic relativity” (Lucy: 1997) as well, looking at the impact of the uses of languages rather than their grammatical structures and the influences such uses have on affective and cognitive understandings.

The general claim about socialization through learning language forms was developed in the context of studying relatively stable, small-scale, monolingual societies. It becomes more complex when language socialization is expanded to include bilingual and multilingual communities with rapid culture change or recent culture contact. In such cases, socialization through language forms expands to include code-switching, language shift, syncretism, and other phenomena associated with contact between two or more languages and cultures (Kulick 1992, Schieffelin 1993, Rymes 2001, Garrett and Baquedano-López 2002, Bayley and Schecter 2003).

Children are socialized through language forms not only in their everyday lives at home, but in specialized contexts that rely on specific language

registers. Perhaps the best example of such context-specific socialization (and certainly the most studied) is in the classroom (see Rymes 2008 and Genishi and Dyson 2009 for reviews). There are particular expectations in school settings for such things as reliance on verbal instruction (Philips 1983), quiz-like questions (Mehan 1979), narrative practices (Michaels 1991), and individual or shared responsibility for communication (Rogoff *et al.* 2007). How long it takes for a child to master such specialized registers depends on how similar or different they are from those they use in their homes and other everyday environments (Corsaro *et al.* 2002). Their degree of mastery, in turn, influences how successful their participation is in such contexts.

Thus, socialization occurs in part through the internalization of language forms and functions as children become competent speakers of particular languages and in particular contexts. This claim constitutes a unique contribution of language socialization to the more general understanding of the process of socialization. But the evidence so far is only preliminary and scattered. More research is needed on the developmental trajectory of linguistic relativity, the effects of more than one language on children's understanding of themselves and their worlds, and the impact of mastery of special linguistic registers on engagement in specialized contexts such as school.

8.3.2 Socialization through participating in interaction

In addition to being socialized into ways of thinking and behaving through making a commitment as a speaker to the cultural organization indexed in the language, there is a second, more activity-based sense of how children are socialized through language: cultural information is communicated through talk during everyday interactions. Children get socialized through interaction not only to language practices but also to the full range of cultural practices and their meanings.

Language as an intentional socializing tool – used for teaching – has been studied in its many forms of verbal feedback. The most direct verbal feedback mechanisms include praise, criticism, and verbal explanation. More indirect (but usually still intentional) mechanisms include questioning (Rogoff *et al.* 1993), teasing (Miller 1986), shaming (Lo and Fung 2012), and narrative (Miller *et al.* 2012). Even the absence of talk can be considered feedback, informative of social rules, as when children are ignored or not allowed to participate in conversations during everyday activities or special ceremonies, even though they are allowed to be present.

Parents in different cultures emphasize different verbal feedback mechanisms based on their ethnotheories about how children learn and develop and what needs to be taught. There are many studies about the particular cultural messages that are transmitted to children through talk. Two noteworthy examples are Briggs (1998), who shows how intimate

conversations between a 3-year-old Inuit child and her close family members teach her to develop an Inuit sense of self and position herself in her social world, and Miller *et al.* (2012), who demonstrate how everyday narratives of transgressions co-constructed between children and their caregivers in the US and Taiwan are used to communicate very different messages in the two cultures.

Language also serves as an unintentional socializing tool during daily interactions. In all cultures, many – if not most – everyday events where children are present are primarily motivated not by socialization goals but from a desire to achieve a concrete goal through action, for example, to complete a work task. Since talk is an inherent part of such interactions, children can extract cultural information as interlocutors. In addition, children can be exposed to a wide range of cultural information from overheard adult conversations in context (e.g., learning about the legal system [Lancy 1996] or the significance of virginity [Fernea 1991]).

Beyond the use of language in interaction, language socialization researchers have embraced looking at the multi-modal aspects of communicative acts and demonstrating the integration of language with other modes of interaction, such as gesture, eye contact, body “language,” and social positioning of bodies. Work on multi-modal communication in adults makes it clear that language shares the communicative burden with non-verbal modes of communication in complex semiotic relationships (Brown and Levinson 2005, Kita 2009, Rossano *et al.* 2009, Enfield 2009). With recent technological advances (e.g., high-quality portable videorecorders and eye-tracking machines), exploring how children are socialized into cultural activity through this broader definition of communication has become increasingly central to child language research. Examples include Kidwell (2005), Filipi (2009), Clark (2012). Studies of multi-modal interaction often exhibit the same methodological commitments of language socialization research more generally, especially a focus on looking at small samples of children using micro-analysis of interaction, and their interpretation of behavior is often well grounded in the ethnographic specificity of a single culture.

Despite the value of such multi-modal studies, it is important not to lose sight of the unique characteristic of verbal language as a socializing force – the ability of language to make denotational and indexical reference to objects, events, ideas, and emotions that lie beyond the immediate context. Using words, people can refer in more complex ways to such things as events happening in another time (past or future) or place, to contrary-to-fact propositions, irrealis (no commitment or uncertainty about existence) events, and metalanguage about itself. The range of things that can be communicated through interaction is vastly wider through language than through other modes of interaction, and this potential for promoting children’s understanding by contrasting the present conditions with the past, future, or possible, is powerful. For instance, Taiwanese caregivers

invite children through co-constructed narratives of past, shared events to generalize about moral behavior and to get children's commitment to different actions in the future (Miller *et al.* 2012). Decontextualized information such as that received (through language) in school, when put in dialectical tension with children's contextualized knowledge developed through experience, has been identified by Vygotsky (1987[1934]; 1978) as leading to a more complex cognitive organization of knowledge.

As the field of language socialization expands its commitment to multi-modal interaction, there is a temptation to conceptualize the language socialization research agenda as being superior to all others for understanding all socialization and learning. Kulick and Schieffelin (2004: 350) argue that this perspective is appropriate: "Hence, language is not just one dimension of the socialization process, it is the most central and crucial dimension of that process. The language socialization paradigm makes the strong claim that any study of socialization that does not document the role of language in the acquisition of cultural practices is not only incomplete. It is fundamentally flawed."

This perspective has led the field of language socialization to exist somewhat isolated from other approaches to the study of socialization. Its practitioners do not integrate into their work those studies that fail to give a privileged position to language per se, even those that share their methodological commitment to ethnography (if not to micro-analysis of interaction) (e.g., in anthropology [LeVine *et al.* 1994, LeVine and New 2008], sociology [Corsaro 2010], and cultural psychology [Shweder *et al.* 2006]). In turn, despite the obvious centrality of language in the process of becoming a member of a cultural group, their work is often omitted in other socialization traditions. This segregation, in spite of common interests, is unfortunate for the field of socialization as a whole.

8.4 Three methodology comments

Here we offer methodological observations in three realms especially pertinent to the field of language socialization: the importance of focusing on children's own creative role in their socialization, the dilemma of breadth vs. depth in language acquisition and socialization research, and the pros and cons of two different styles of research, individual case studies vs. comparative studies. In all three realms, the issues we raise have to do with what counts as data in the study of child language and socialization.

8.4.1 Children's roles in socialization

One important question is this: Whose behavior influences the socialization process? Early models of socialization viewed children as passive

recipients of information, given their immaturity and limited understanding (Clausen 1968). At the time that the field of language socialization developed in the 1970s and 1980s, new models of socialization were recognizing children's roles in the process, arguing that children not only receive the information offered but also interpret, improve, recreate, negate, resist, comment on, and transform it (Kuczynski and Parkin 2007). In the process, children's constructed understandings can vary from the original intentions of the socializing agents. However, while individual variation and generational change are now considered, socialization continues to be construed as primarily a normative process with the goal of producing members who function effectively in the group and are able to transmit the group's cultural practices to the next generation (Maccoby 2007).

Kulick and Schieffelin (2004) specifically articulated the role of children in language socialization; children are recognized as "active and selective agents" (Watson-Gegeo and Nielsen 2003: 165). Such attribution of agency to children is congruent with the view that socialization occurs through interaction in communities of practice (Bourdieu 1977, Giddens 1979). Children, as *legitimate peripheral participants* (Lave and Wenger 1991), are thought to learn about their shared world through shared activity. Recognizing that socialization occurs through participation in interaction highlights the dynamics of child agency, as children not only comply with, but also resist, expand, transform, or ignore the intent of their conversational partners (Gaskins *et al.* 1992), and studies that carefully consider detailed behavior in interaction abundantly illustrate this (e.g., Heath 1983, Sperry and Sperry 1996, Briggs 1998, De León 1998, 2012, Ochs and Capps 2001, Miller *et al.* 2012). From this perspective, using more intentionally child-centered methods (Clark 2010) in conjunction with current methodologies could be potentially productive.

In some cultures and contexts, children are permitted or encouraged to structure interaction and thereby become the active socializing force. In some "child-centered" cultures, children may use interactions with caregivers for their own purposes, e.g., interrupting or asking endless "why" questions (Callanan and Oakes 1992, Maratsos 2007) – as if the caregivers are being socialized by the children to prioritize the child's needs and interests. Orellana's (2009) work on bilingual children serving as translators for their monolingual parents provides a different kind of example of children using the host language as a socialization tool to teach their parents about the new culture, even as their parents are socializing the children using the home language. And in most cultures, children socialize each other through peer interactions (Corsaro 1992; Reynolds 2008; Goodwin and Kyratzis 2012).

When children exhibit non-canonical or unexpected behavior, it is difficult to distinguish among intentional assertion of power, expression

of personal meaning, or merely incomplete understanding. While the first two are difficult enough to distinguish (Briggs 1998), there is also a lack of attention in much of the literature on language socialization to the milestones of human development, making it difficult to identify intentional and unintentional nonconformity in interaction. A partial list of potentially universal changes from infancy through adolescence that could influence socialization includes the following: becoming mobile, coming to share attention and intention with interlocutors, developing a “theory of mind” (an understanding that others’ minds are distinct from one’s own and may hold different beliefs about the world than one’s own beliefs), a widening of children’s social worlds beyond the family into the world of peers and cultural institutions, and a flowering of interest in potential sexual partners. As is the case in much of the ethnography of childhood, in most studies of language socialization such developmental factors are missing or left as implicit and unanalyzed.

8.4.2 Balancing breadth and depth

Kulick and Schieffelin (2004) argue that language socialization research must meet three criteria: (1) be ethnographies of speaking to and by a small sample of children in the context of their everyday lives, (2) use a longitudinal design, documenting change in children’s behavior and understanding, and (3) show how children come to acquire (or not) linguistic practices and related cultural practices over time and across contexts. Ochs’ (1988) and Schieffelin’s (1990) original studies (and many others that followed) meet these criteria. In addition, they relied on micro-analysis of particular interactions. Ochs and Schieffelin (1984) and Schieffelin and Ochs (1986a) also emphasized the value of comparing systems of language socialization across cultures. Taken together, their approach reflects Vygotsky’s three levels of analysis (1987[1934]) needed to understand developmental change: micro-analysis of change moment-to-moment, longitudinal analysis of change over developmental time, and historical analysis of change in societies (or, as in this case, across cultures).

Such work is extremely intensive and laborious. Understandably, most research in the field has not managed to meet these criteria. Instead, many studies preserve only one of these methodological approaches: the micro-analysis of naturally occurring interactions of short durations. Such analysis is often interpreted by a particular linguistic or cultural characteristic that is not generated by the study itself. Garrett and Baquedano-Lopez have called this micro-analysis “empirically grounded access to broader issues of sociocultural reproduction and transformation” (2002: 342).

These studies can provide great insight into the complexity of conversation, and the subtle coordination with other modes of interaction. They demonstrate what *can* happen, but taken alone, without evidence that the interactions analyzed represent consistent patterns in everyday behavior, they may not represent what *does* happen repeatedly in the course of daily interactions that results in socialization. Since the theory of language socialization relies heavily on practice theory, it is crucial that events singled out for micro-analysis are representative of patterns in everyday behavior. One solution to this problem is to combine a broad sampling of the distribution of types of behaviors with more in-depth analysis of specific types that appear frequently. Brown (2011) and Miller *et al.* (2012) provide examples of this approach. Another solution is to identify specific recurrent cultural events and focus the analysis on them, e.g., “dinner-time” (Ochs and Capps 2001, Pontevorvo *et al.* 2001), or playground behavior (Goodwin 2006).

Further, researchers need to be able to have their data speak to two more areas. It must inform interpretations about *why* certain kinds of interactions happen – that is, they need to be able to provide a “thick explanation” that takes into account “all relevant and theoretically salient micro- and macro-contextual influences that stand in systematic relationship to the behavior or events” that are to be explained (Watson-Gegeo 1992: 54). And they must be able to demonstrate how patterns in daily interactions lead to cultural competencies over time (or not). While a full monograph can provide a rich ethnographic context for the specific behaviors being analyzed in detail and demonstrate their consequences over time, it is more difficult to do so in a shorter, more focused analysis that stands alone as a chapter or article. Such work runs the risk of being so focused on the analysis of interaction that it is unable to address adequately the socialization outcomes of the recurrence of such experiences.

8.4.3 Case studies vs. comparison

A third methodological issue is how to combine the rich description of a single culture’s socialization practices with meaningful comparison of such practices across cultures. While field-research-based cross-cultural comparison has been carried out on childhood and parenting (e.g., Whiting and Whiting 1975; Munroe *et al.* 1984; Harkness *et al.* 2011), this is a much less common strategy in language socialization research. It has occasionally been done through collaboration, either loosely (e.g., Ochs and Schieffelin 1984), through an integrated research partnership (Miller *et al.* 2012), or by a single researcher working in two communities (e.g., Heath 1983, Brown 2011). Because systematic comparison requires quantification, this goal is often in direct competition with achieving the ethnographic depth discussed above. By and large, the field remains one of individual case studies. The power of those comparative studies that do

exist, however, suggest that this should be a strategy used more in the future. Inhibitions on such studies involve problems not only of competing theoretical perspectives but also of available resources.

8.5 Conclusions

Why study child language development? There are different answers from the point of view of developmental psychology, of anthropology, of linguistics, and of social interaction. There are many disagreements about what the interesting phenomena are, about theory, and about method. But it is clear that major theoretical issues are at stake: the nature of language, the cultural flexibility of child development, the role of input in language acquisition, the relation of language and cognition, whether or not there is a unified developmental outcome for cognition, the effects of interactional processes on linguistic structure and on cognitive development, and the evolution of human nature.

Because the stakes are so high, it is important to ask a second question: how is child language development best studied? Linguistic anthropologists have a unique two-part contribution to the answer to this question. They have focused on the importance of documenting the variability of linguistic structure and of caregiver-child interactions across different cultures and demonstrating when and how linguistic and cultural differences matter in the language acquisition process. Equally important, they have focused on how children's use of linguistic structures and their interactions with others lead them to become competent members of a social group. Language and the interactions in which its use is embedded are the formative locus for culture, recreated and revised by each generation via socialization.

The insights gained by the study of children's language socialization are not limited to addressing questions about how children develop. Because children are novices learning the system, language socialization is a window into cultural meanings. Looking at how language is used to children and by children as they develop highlights some of the central cultural characteristics of the communicative system – for example, how honorifics are used and acquired illuminates which social categories are most basic. Similarly, one can see the cultural importance of particular beliefs and values by what gets emphasized (or ignored) in talk to, with, and about children. Because children are not yet competent participating members of the group, many things that are not marked in adult interactions are marked for children through selection, repetition, elaboration, and explicitness. Through the dual processes of accommodating to children's lack of understanding and helping them learn, adults reveal not only their cultural understandings about themselves and the world, but also their theories about the process of acquiring those understandings: how the self is constructed, how the social graces are acquired, how humans come to relate to the world.

References

- Akhtar, N., J. Jipso, and M. A. Callanan. 2001. Learning Words through Overhearing. *Child Development* 72(2): 416–30.
- Allen, S. E. M. 1996. *Aspects of Argument Structure Acquisition in Inuktitut*. Amsterdam: John Benjamins.
2008. Interacting Pragmatic Influences on Children's Argument Realization. In *Crosslinguistic Perspectives on Argument Structure: Implications for Learnability*, ed. M. Bowerman and P. Brown, 191–210. Mahwah, NJ: Lawrence Erlbaum.
- Allen, S. E. M., and M. Crago. 1996. Early Passive Acquisition in Inuktitut. *Journal of Child Language* 23: 129–55.
- Allen, S. E. M., and H. Schroder. 2003. Preferred Argument Structure in Early Inuktitut Spontaneous Speech Data. In *Preferred Argument Structure: Grammar as Architecture for Function*, ed. J. W. Du Bois, L. E. Kumpf, and W. J. Ashby, 301–38. Amsterdam: John Benjamins.
- Ambridge, B., and E. V. M. Lieven. 2011. *Child Language Acquisition: Contrasting Theoretical Approaches*. Cambridge: Cambridge University Press.
- Barlow, M., and S. Kemmer. 2000. *Usage-Based Models of Grammar*. Stanford: CSLI Publications.
- Bates, E. 1976. *Language and Context: The Acquisition of Pragmatics*. New York: Academic Press.
- Bates, E., I. Bretherton, and L. Snyder. 1988. *From First Words to Grammar: Individual Differences and Dissociable Mechanisms*. New York: Cambridge University Press.
- Bavin, E. 1992. The Acquisition of Warlpiri. In *The Crosslinguistic Study of Language Acquisition*, ed. D. I. Slobin, Vol. 3, 309–71. Cambridge: Cambridge University Press.
- ed. 2009. *The Cambridge Handbook of Child Language*. New York: Cambridge University Press.
- Bavin, E., and S. Stoll, eds. 2013. *Acquisition of Ergative Structures*. Amsterdam: Benjamins.
- Bayley, R., and S. R. Schecter, eds. 2003. *Language Socialization in Bilingual and Multilingual Societies*. Bristol: Multilingual Matters.
- Behrens, H. 2009. Usage-based and Emergentist Approaches to Language Acquisition. *Linguistics* 47(2): 383–411.
- Berman, R., and D. I. Slobin, eds. 1994. *Relating Events in Narrative: A Crosslinguistic Developmental Study*. Hillsdale, NJ: Erlbaum.
- Blake, J. 2000. *Routes to Child Language: Evolutionary and Developmental Precursors*. Cambridge: Cambridge University Press.
- Blount, B. G. 1969. Acquisition of Language by Luo Children. Working paper no. 19, University of California, Berkeley. Language-Behavior Research Laboratory.

- Blum-Kulka, S., and C. E. Snow, eds. 2002. *Talking to Adults: The Contribution of Multi-party Talk to Language Acquisition*. Mahwah, NJ: Erlbaum.
- Bornstein, M. H., L. R. Cote, S. Maital, K. Painter, S-Y. Park, L. Pascual, M.-G. Pecheux, J. Ruel, P. Venute, and A. Vyt. 2004. Cross-linguistic Analysis of Vocabulary in Young Children: Spanish, Dutch, French, Hebrew, Italian, Korean, and American English. *Child Development* 75(4): 1115–39.
- Bourdieu, P. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bowerman, M. 1981. Language Development. In *Handbook of Cross-cultural Psychology*, vol. 4, ed. H. C. Triandis and A. Heron, 93–185. Boston: Allyn and Bacon.
1990. Mapping Thematic Roles onto Syntactic Functions: Are children helped by innate linking rules? *Linguistics* 28: 1253–90.
1996. Learning How to Structure Space for Language: A cross-linguistic perspective. In *Language and Space*, ed. P. Bloom, M. Peterson, L. Nadel, and M. Garret, 385–436. Cambridge, MA: MIT Press.
2011. Linguistic Typology and First Language Acquisition. In *The Oxford Handbook of Linguistic Typology*, ed. J.J. Song, 591–617. Oxford: Oxford University Press.
- Bowerman, M., and Brown, P., eds. 2008a. *Crosslinguistic Perspectives on Argument Structure: Implications for Learnability*. Mahwah, NJ: Lawrence Erlbaum.
- 2008b. Introduction. In *Crosslinguistic Perspectives on Argument Structure: Implications for Learnability*, ed. M. Bowerman and P. Brown, 1–26. Mahwah, NJ: Lawrence Erlbaum.
- Bowerman, M., and S. Choi. 2001. Shaping Meanings for Language: Universal and language specific in the acquisition of spatial semantic categories. In *Language Acquisition and Conceptual Development*, ed. M. Bowerman and S.C. Levinson, 475–511. Cambridge: Cambridge University Press.
- Briggs, J. L. 1998. *Inuit Morality Play: The Emotional Education of a Three-Year-Old*. New Haven, CT: Yale University Press.
- Brown, P. 1998a. Children's First Verbs in Tzeltal: Evidence for an early verb category. *Linguistics* 36(4): 713–53.
- 1998b. Conversational Structure and Language Acquisition: The role of repetition in Tzeltal adult and child speech. *Journal of Linguistic Anthropology* 8(2): 197–221.
2002. Everyone Has to Lie in Tzeltal. In *Talking to Adults; The Contribution of Multiparty Discourse to Language Acquisition*, ed. S. Blum-Kulka and C. Snow, 241–75. Mahwah, NJ: Lawrence Erlbaum.
2007. Culture-specific Influences on Semantic Development: Acquiring the Tzeltal 'benefactive' construction. In *Learning Indigenous Languages: Child Language Acquisition in Mesoamerica*, ed. B. B. Pfeiler, 119–54. Berlin: Mouton de Gruyter.

2008. Verb Specificity and Argument Realization in Tzeltal Child Language. In *Crosslinguistic Perspectives on Argument Structure: Implications for Language Acquisition*, ed. M. Bowerman and P. Brown, 167–89. Mahwah, NJ: Lawrence Erlbaum.
2011. The Cultural Organization of Attention. In *Handbook of Language Socialization*, ed. A. Duranti, E. Ochs, and B.B. Schieffelin, 29–55. Oxford: Blackwells.
- Brown, P., B. Pfeiler, L. de León, and C. Pye. 2013. The Acquisition of Agreement in Four Mayan Languages. In *The Acquisition of Ergativity*, ed. E.L. Bavin and S. Stoll, 271–306. Amsterdam: Benjamins.
- Brown, P., and S. C. Levinson. 1993. Linguistic and Non-linguistic Coding of Spatial Arrays: Explorations in Mayan cognition. Cognitive Anthropology Research Group Working Paper 24, Max Planck Institute for Psycholinguistics.
2000. Frames of Spatial Reference and their Acquisition in Tenejapan Tzeltal. In *Culture, Thought, and Development*, ed. L. Nucci, G. Saxe, and E. Turiel, 167–97. Mahwah, NJ: Lawrence Erlbaum.
2005. Comparative Feedback: Cultural shaping of response systems in interaction. Paper presented at the Annual Meetings of the American Anthropological Association, Washington, DC.
2009. Language as Mind Tools: Learning how to think through speaking. In *Crosslinguistic Approaches to the Psychology of Language: Research in the Tradition of Dan Slobin*, ed. J. Guo, E. Lieven, N. Budwig, S. Ervin-Tripp, K. Nakamura, and S. Ozcaliskan, 451–64. Mahwah, NJ: Lawrence Erlbaum.
- Brown, R. 1973. *A First Language: The Early Stages*. Cambridge, MA: Harvard University Press.
- Callaghan, T., H. Moll, H. Rakoczy, F. Warneken, U. Liszkowski, T. Behne, and M. Tomasello. 2011. *Early Social Cognition in Three Cultural Contexts*. Oxford: Wiley-Blackwell.
- Callanan, M., and L. Oakes. 1992. Preschoolers Questions and Parents' Explanations: Causal thinking in everyday activity. *Cognitive Development* 7: 213–33.
- Carpenter, M, K. Nagell, and M. Tomasello. 1998. Social Cognition, Joint Attention, and Communicative Competence from 9 to 15 Months of Age. *Monographs of the Society for Research in Child Development* 63 (4, Serial No. 255).
- Chater, N., and M.H. Christiansen. 2010. Language Acquisition Meets Language Evolution. *Cognitive Science* 34: 1131–57.
- Chavajay, P., and B. Rogoff. 1999. Cultural Variation in Management of Attention by Children and their Caregivers. *Developmental Psychology* 35(4): 1079–90.
- Choi, S. 1997. Language-specific Input and Early Semantic Development: Evidence from children learning Korean. In *The Crosslinguistic Study of Language Acquisition*, ed. D.I. Slobin, Vol. 5, 41–134. Hillsdale, NJ: Erlbaum.

- Choi, S., and M. Bowerman. 1991. Learning to Express Motion Events in English and Korean – The influence of language-specific lexicalization patterns. *Cognition* 41: 83–121.
- Choi, S., and A. Gopnik. 1995. Early Acquisition of Verbs in Korean: A cross-linguistic study. *Journal of Child Language* 22(3): 497–529.
- Choi, S., L. McDonough, M. Bowerman, and J.M. Mandler. 1999. Early Sensitivity to Language-specific Spatial Categories in English and Korean. *Cognitive Development* 14: 241–68.
- Clancy, P. 1985. The Acquisition of Japanese. In *The Crosslinguistic Study of Language Acquisition*, Vol. 1, ed. D.I. Slobin, 373–524. Hillsdale, NJ: Erlbaum.
1993. Preferred Argument Structure in Korean Acquisition. In *Proceedings of the 25th Annual Child Language Research Forum*, ed. E. V. Clark, 307–14. Stanford, CA: Center for the Study of Language and Information (CSLI) Publications.
2003. The Lexicon in Interaction: Developmental origins of Preferred Argument Structure in Korean. In *Preferred Argument Structure: Grammar as Architecture for Function*, ed. J. W. Du Bois, L. E. Kumpf, and W. J. Ashby, 81–108. Amsterdam: John Benjamins.
- Clark, C. D. 2010. *In a Younger Voice: Doing Child-Centered Qualitative Research*. Oxford: Oxford University Press.
- Clark, E. V. 2001. Grounding and Attention in Language Acquisition. In *Papers from the 37th Meeting of the Chicago Linguistic Society*, Vol. 1, ed. M. Andronis, C. Ball, H. Elston, and S. Neuvel, 95–116. Chicago: Chicago Linguistic Society.
2012. Children, Conversation, and Acquisition. In *Cambridge Handbook of Psycholinguistics*, ed. M. Spivey, K. McRae, and M. Joanisse, 573–88. Cambridge: Cambridge University Press.
- Clark, E. V., and Kelly, B., eds. 2006. *Constructions in Acquisition*. Stanford, CA: CSLI Publications.
- Clausen, J.A. 1968. A Historical and Comparative View of Socialization Theory and Research. In *Socialization and Society*, ed. J.A. Clausen, 18–72. Boston, MA: Little, Brown.
- Corsaro, W.A. 1992. Interpretive Reproduction in Children's Peer Cultures. *Social Psychology Quarterly* 55: 160–77.
2010. *The Sociology of Childhood*. New York: Russell Sage.
- Corsaro W. A., L. Molinary, and K. Brown Rosier. 2002. Zena and Carlotta: Transition narratives and early education in the United States and Italy. *Human Development* 45: 323–48.
- Crago, M. B., Allen, S. E. M., and Hough-Eyamie, W. P. (1997). Exploring Innateness through Cultural and Linguistic Variation. In *The Biological Basis of Language*, ed. M. Gopnik, 70–90. Oxford: Oxford University Press.
- Danziger, E. 2008. A Person a Place or a Thing? Whorfian consequences of syntactic Bootstrapping in Mopan Maya. In *Crosslinguistic Perspectives*

- on *Argument Structure: Implications for Learnability*, ed. M. Bowerman and P. Brown, 29–48. Mahwah, NJ: Lawrence Erlbaum.
- Demuth, K. 1992. The Acquisition of Sesotho. In *The Crosslinguistic Study of Language Acquisition*, Vol. 3, ed. D.I. Slobin, 557–638. Hillside, NJ: Erlbaum.
1998. Argument Structure and the Acquisition of Sesotho Applicatives. *Linguistics* 36(4): 781–806.
2003. The Acquisition of Bantu Languages. In *The Bantu Languages*, ed. D. Nurse and G. Philippson, 209–22. Surrey, England: Curzon Press.
- Demuth, K., F. Moloi, and M. Machebane. 2010. 3-yr.-olds Comprehension, Production, and Generalization of Sesotho Passives. *Cognition* 115: 238–251.
- Du Bois, J. 1987. The Discourse Basis of Ergativity. *Language* 64: 805–55.
- Duff, P., and N. H. Hornberger. 2008. *Encyclopedia of Language and Education: Language Socialization*, Vol. 8. Berlin: Springer.
- Duranti, A., E. Ochs, and B. Schieffelin, eds. 2011. *The Handbook of Language Socialization*. Malden, MA: Wiley-Blackwell.
- Enfield, N.J. 2009. *The Anatomy of Meaning: Speech, Gesture, and Composite Utterances*. Cambridge: Cambridge University Press.
- Essegbey, J. 2008. Intransitive Verbs in Ewe and the Unaccusativity Hypothesis. In *Crosslinguistic Perspectives on Argument Structure: Implications for Learnability*, ed. M. Bowerman and P. Brown, 213–30. Mahwah, NJ: Lawrence Erlbaum.
- Evans, N., and S. C. Levinson. 2009. The Myth of Language Universals: Language diversity and its importance for cognitive science. *Behavioral and Brain Sciences* 32(5): 429–92.
- Fernea, E. 1991. Muslim Middle East. In *Children in Historical and Comparative Perspective*, ed. J.M. Hawes and N.R. Hiner, 447–70. Westport: Greenwood Press.
- Filipi, A. 2009. *Toddler and Parent Interaction: The Organisation of Gaze, Pointing and Vocalisation*. Amsterdam: John Benjamins.
- Fisher, C., and L. Gleitman. 2002. Language Acquisition. In *Stevens' Handbook of Experimental Psychology, Vol 1: Learning and Motivation*, ed. C. R. Gallistel, 445–96. New York: Wiley.
- Fortescue, M., and L. Olsen. 1992. The Acquisition of West Greenlandic. In *The Crosslinguistic Study of Language Acquisition*, Vol. 3, ed. D.I. Slobin, 111–219. Hillside, NJ: Erlbaum.
- Garrett, P.B., and P. Baquedano-Lopez. 2002. Language Socialization: Reproduction and continuity, transformation and change. *Annual Review of Anthropology* 31: 339–61.
- Gaskins, S. 2006. Cultural Perspectives on Infant–Caregiver Interaction. In *Roots of Human Sociality: Culture, Cognition and Interaction*, ed. N. J. Enfield and S. C. Levinson, 279–98. Oxford: Berg Publishers.
- Gaskins, S., P. Miller, and W. Corsaro. 1992. Theoretical and Methodological Perspectives in the Interpretative Study of Children.

- In *The Production and Reproduction of Children's Worlds: Interpretive Methodologies for the Study of Childhood Socialization*, ed. W. Corsaro and P.J. Miller, 5–23. San Francisco, CA: Jossey-Bass, Inc.
- Gaskins, S., and R. Paradise. 2010. Learning through Observation. In *The Anthropology of Learning in Childhood*, ed. D.F. Lancy, J. Bock, and S. Gaskins, 85–117. Lanham, MD: Alta Mira Press.
- Genishi, C., and A.H. Dyson. 2009. *Children, Language and Literacy: Diverse Learners in Diverse Times*. New York: Teachers College Press.
- Gentner, D. 1982. Why Nouns are Learned Before Verbs: Linguistic relativity versus natural partitioning. In *Language development*, Vol. 2: *Language, Thought, and Culture*, ed. S.A. Kuczaj, 301–34. Hillsdale, NJ: Erlbaum.
- Gentner, D., and L. Boroditsky. 2001. Individuation, Relativity and Early Word Learning. In *Language Acquisition and Conceptual Development*, ed. M. Bowerman and S. Levinson, 215–56. Cambridge: Cambridge University Press.
- Gentner, D., and M. Bowerman. 2009. Why Some Spatial Semantic Categories are Harder to Learn than Others: The typological prevalence hypothesis. In *Crosslinguistic Approaches to the Psychology of Language: Research in the Tradition of Dan Isaac Slobin*, ed. J. Guo, E. Lieven, N. Budwig, S. Ervin-Tripp, K. Nakamura, and S. Ozcaliskan, 465–80. New York: Psychology Press.
- Gergely, G., and G. Csibra. 2006. Sylvia's Recipe: The role of imitation and pedagogy in the transmission of cultural knowledge. In *Roots of Human Sociality: Culture, Cognition and Interaction*, ed. N. Enfield and S. C. Levinson, 229–55. Oxford: Berg.
- Giddens, A. 1979. *Central Problems in Social Theory: Action, Structure, and Contradiction in Social Analysis*. Berkeley, CA: University of California Press.
- Gleitman, L. 1990. The Structural Source of Verb Meanings. *Language Acquisition* 1: 3–55.
- Goodwin, M. 2006. *The Hidden Life of Girls: Games of Stance, Status, and Exclusion*. Oxford: Blackwell Publishing.
- Goodwin, M. H., and A. Kyratzis. 2012. Peer Language Socialization. In *The Handbook of Language Socialization*, ed. A. Duranti, E. Ochs, and B. B Schieffelin, 365–90. Malden, MA: Wiley-Blackwell.
- Grusec, J.E., and P.D. Hastings. 2007. Introduction. In *Handbook of Socialization: Theory and Research*, ed. J. P Grusec and P. D Hastings, 1–9. New York: Guilford Press.
- Guasti, M. T. 2004. *Language Acquisition: The Growth of Grammar*. Cambridge, MA: MIT Press.
- Gumperz, J.J., and D. Hymes, eds. 1964. The Ethnography of Communication. *American Anthropologist* 66:6, part 2 (Special Issue).
- Harkness, S., and C. Super, eds. 1996. *Parents' Cultural Belief Systems: Their Origins, Expressions, and Consequences*. New York: The Guilford Press.

- Harkness, S., P. O. Zylicz, C. M. Super, B. Welles-Nyström, M. R. Bermúdez, S. Bonichini, U. Moscardino, and C. J. Mavridis. 2011. Children's Activities and their Meanings for Parents: A mixed-methods study in six Western cultures. *Journal of Family Psychology* 25(6): 799–813.
- Hayashi, M., G. Raymond, and J. Sidnell, eds. 2013. *Conversational Repair and Human Understanding*. Cambridge: Cambridge University Press.
- Heath, S. Brice 1983. *Ways with Words: Language, Life, and Work in Communities and Classrooms*. New York: McGraw-Hill
- Hoff, E. 2003. The Specificity of Environmental Influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development* 74(5): 1368–78.
- Huttenlocher, J., W. Haight, A. Bryk, M. Seltzer, and T. Lyons. 1991. Vocabulary Growth: Relation to language input and gender. *Developmental Psychology* 27: 236–48.
- Huttenlocher, J., H. Waterfall, M. Vasilyeva, J. Vevea, and L. V. Hedges. 2010. Sources of Variability in Children's Language Growth. *Cognitive Psychology* 61(4): 343–65.
- Jakobson, R. 1968 [1941]. *Child Language, Aphasia, and Linguistic Universals*. *Janua Linguarum* 72. The Hague: Mouton.
- Kernan, K. K. 1969. *The Acquisition of Language by Samoan Children*. Unpublished PhD dissertation. Berkeley, CA: Language Behavior Research Laboratory, University of California.
- Kidwell, M. 2005. Gaze as Social Control: How very young children differentiate “the look” from “a mere look” by their adult caregivers. *Research on Language and Social Interaction* 38(4): 417–49.
- Kim, Y. 1997. The Acquisition of Korean. In *The Crosslinguistic Study of Language Acquisition*, Vol. 4, ed. D. I. Slobin, 335–443. Hillsdale, NJ: Erlbaum.
- Kita, S. 2003. *Pointing: Where Language, Culture and Cognition Meet*. Hillsdale, NJ: Erlbaum.
2009. Cross-cultural Variation of Speech-accompanying Gesture: A review. *Language and Cognitive Processes* 24(2): 145–67.
- Kuczynski, L., and C. M. Parkin. 2007. Agency and Bidirectionality in Socialization: Interactions, transactions, and relational dialectics. In *Handbook of Socialization: Theory and Research*, ed. J. P. Grusec and P. D. Hastings, 259–83. New York: Guilford.
- Kuhl, P. K. 2009. Early Language Acquisition: Phonetic and word learning, neural substrates, and a theoretical model. In *The Perception of Speech: From Sound to Meaning*, ed. B. Moore, L. Tyler, and W. Marslen-Wilson, 103–31. Oxford: Oxford University Press.
- Kulick, D. 1992. *Language Shift and Cultural Reproduction: Socialization, Self, and Syncretism in a Papua New Guinea Village*. Cambridge: Cambridge University Press.
- Kulick, D., and B. Schieffelin. 2004. Language Socialization. In *A Companion to Linguistic Anthropology*, ed. A. Duranti, 349–68. Malden, MA: Blackwell.

- Küntay, A., and D.I. Slobin. 1996. Listening to a Turkish Mother: Some puzzles for acquisition. In *Social Interaction, Social Context, and Language: Essays in Honor of Susan Ervin-Tripp*, ed. D.I. Slobin, J. Gerhardt, A. Kyratzis, and J. Guo, 265–86. Hillsdale, NJ: Erlbaum.
- Lancy, D. F. 1996. *Playing on the Mother Ground: Cultural Routines for Children's Development*. New York: Guilford.
- Lave, J., and E. Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation*. Cambridge: University of Cambridge Press.
- León, L. de. 1998. The Emergent Participant. *Journal of Linguistic Anthropology* 8(2): 131–61.
1999. Verb Roots and Caregiver Speech in Early Tzotzil Acquisition. In *Cognition and Function in Language*, ed. B.A. Fox, D. Jurafsky, and L. A. Michaelis, 99–119. Stanford, CA: Stanford University Center for Language and Information.
2011. Language Socialization and Multiparty Participation Frameworks. In *Handbook of Language Socialization*, ed. A. Duranti, E. Ochs, and B. B. Schieffelin, 81–111. Oxford: Blackwells.
2012. “The j’ik’al is coming!” Triadic directives and emotion in the socialization of Zinacantec Mayan children. In *Maya Daily Lives. Proceedings of the 13th European Maya Conference, Paris, December 5–6, 2008*, ed. A. Breton and P. Nondédéo (= *Acta Mesoamericana* 24), 185–96. Markt Schwaben: Verlag Anton Saurwein.
- LeVine, R. A., P. M. Miller, A. L. Richman, and S. LeVine. 1996. Education and Mother–Infant Interaction. A Mexican case study. In *Parents' Cultural Belief Systems*, ed. S. Harkness and C. M. Super, 254–69. New York: Guilford Press
- LeVine, R., S. Dixon, S. LeVine, A. L. Richman, P. H. Leiderman, C. H. Keefer, and T. B. Brazelton. 1994. *Child Care and Culture: Lessons from Africa*. Cambridge: Cambridge University Press.
- LeVine, R. A., and R. New, eds. 2008. *Anthropology and Child Development: A Cross-cultural Reader*. Malden, MA: Blackwell.
- Levinson, S. C. 2003. *Space in Language and Cognition: Explorations in Cognitive Diversity*. Cambridge: Cambridge University Press.
2006. On the Human “Interaction Engine.” In *Roots of Sociality: Culture, Cognition, and Interaction*, ed. N. Enfield and S. C. Levinson, 153–78. Oxford: Berg.
2012. Foreword. In *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*, ed. J. B. Carroll, S. C. Levinson, and P. Lee, 2nd ed., vii–xxiii. Cambridge, MA: MIT Press.
- Lieven, E. V. M. 1994. Crosslinguistic and Crosscultural Aspects of Language Addressed to Children. In *Input and Interaction in Language Acquisition*, ed. C. Gallaway and B. J. Richards, 56–72. New York: Cambridge University Press.
1997. Variation in Crosslinguistic Context. In *The Crosslinguistic Study of Language Acquisition*, Vol. 5, ed. D.I. Slobin, 199–264. Hillsdale, NJ: Erlbaum.

- Lieven, E. V. M., and S. Stoll. 2009. Language Development. In *The Handbook of Cross-Cultural Developmental Science*, ed. M. Bornstein, 143–60. New York: Psychology Press.
- Lieven, E. V. M., S. Stoll, B. Bickel, M. Gaenszle, and N. P. Paudyal. In prep. Early Communicative Development in Two Cultures.
- Liszkowski, U., P. Brown, T. Callaghan, A. Takada, and C. de Vos. 2012. A Prelinguistic Universal of Human Communication. *Cognitive Science* 36: 698–713.
- Lo, A., and H. Fung. 2012. Language Socialization and Shaming. In *The Handbook of Language Socialization*, ed. A. Duranti, E. Ochs, and B. B. Schieffelin, 169–80. Malden, MA: Wiley-Blackwell.
- Lucy, J. 1992a. *Language Diversity and Thought: A Reformulation of the Linguistic Relativity Hypothesis*. Cambridge: Cambridge University Press.
- 1992b. *Grammatical Categories and Cognition: A Case Study of the Linguistic Relativity Hypothesis*. Cambridge: Cambridge University Press.
1997. Linguistic Relativity. *Annual Review of Anthropology* 26: 291–312.
- Lucy, J., and Gaskins, S. 2001. Grammatical Categories and the Development of Classification Preferences: A comparative approach. In *Language Acquisition and Conceptual Development*, ed. M. Bowerman and S. C. Levinson, 257–83. Cambridge: Cambridge University Press.
2003. Interaction of Language Type and Referent Type in the Development of Nonverbal Classification Preferences. In *Language in Mind: Advances in the Study of Language and Thought*, ed. D. Gentner and S. Goldin-Meadow, 465–92. Cambridge, MA: MIT Press.
- Lust, B. 2006. *Child Language: Acquisition and Growth*. Cambridge: Cambridge University Press.
- Maccoby, E. E. 2007. Historical Overview of Socialization Theory and Research. In *Handbook of Socialization: Theory and Research*, ed. J. P. Grusec and P. D. Hastings, 13–41. New York: Guilford Press.
- Maratsos, M. P. 2007. Commentary. *Monographs of the Society for Research in Child Development* 72 (286): 121–6.
- Martini, M., and Kirkpatrick, J. 1981. Early Interactions in the Marquesas Islands. In *Culture and Early Interactions*, ed. T. M. Fields, A. M. Sostek, P. Vietze, and P. H. Leiderman, 189–213. Hillsdale, NJ: Erlbaum.
- Masataka, N. 2003. *The Onset of Language*. Cambridge: Cambridge University Press.
- Mehan, H. 1979. *Learning Lessons: Social Organization in the Classroom*. Cambridge, MA: Harvard University Press.
- Menn, L., and Stoel-Gammon, C. 1996. Phonological Development. In *The Handbook of Child Language*, ed. P. Fletcher and B. MacWhinney, 335–59. Oxford: Wiley/Blackwell.
- Meyer, Mercer. 1969. *"Frog, where are you?"* New York: Dial.
- Michaels, S. 1991. The Dismantling of Narrative. In *Developing Narrative Structure*, ed. A. McCabe and C. Peterson, 303–50. Hillsdale, NJ: Lawrence Erlbaum.

- Miller, P.J. 1982. *Amy, Wendy, and Beth: Learning Language in South Baltimore*. Austin: University of Texas Press.
1986. Teasing as Language Socialization and Verbal Play in a White, Working-Class Community. In *Language Socialization across Cultures*, ed. B.B. Schieffelin and E. Ochs, 199–212. Cambridge: Cambridge University Press.
- Miller, P.J., H. Fung, S. Lin, E. Chian-Hui Chen, and B.R. Boldt. 2012. *How Socialization Happens on the Ground: Narrative practices as alternate socializing pathways in Taiwanese and European-American families*. Monographs of the Society for Research in Child Development 77(1, Serial No. 302). Boston, MA: Wiley-Blackwell.
- Miller, P.J., and L. Hoogstra. 1992. Language as Tool in the Socialization and Apprehension of Cultural Meanings. In *New Directions in Psychological Anthropology*, ed. T. Schwartz, G.M. White, and C.A. Lutz, 83–101. Cambridge: Cambridge University Press.
- Miller, P.J., M. Koven, and S. Lin. 2012. Language Socialization and Narrative. In *The Handbook of Language Socialization*, ed. A. Duranti, E. Ochs, and B.B. Schieffelin, 190–208. Malden, MA: Wiley-Blackwell.
- Mitchell-Kernan, C.I. 1969. *Language Behavior in a Black Urban Community*. Berkeley, CA: Language Behavior Research Laboratory Working Paper 23, University of California.
- Montgomery, H. 2008. *An Introduction to Childhood: Anthropological Perspectives on Children's Lives*. Malden, MA: Wiley-Blackwell.
- Munroe, R.H., R.L. Munroe, and H.S. Shimmin. 1984. Children's Work in Four Cultures: Determinants and Consequences. *American Anthropologist* 86(2): 369–79.
- Narasimhan, B. 2005. Splitting the Notion of "Agent": Case-Marking in early child Hindi. *Journal of Child Language* 32(4): 787–803.
- Narasimhan, B., N. Budwig, and L. Murty. 2005. Argument Realization in Hindi Caregiver–Child Discourse. *Journal of Pragmatics* 37(4): 461–95.
- Ochs, E. 1988. *Culture and Language Development: Language Acquisition and Language Socialization in a Samoan village*. Cambridge: Cambridge University Press.
- Ochs, E., and L. Capps. 2001. *Living Narrative: Creating Lives in Everyday Storytelling*. Cambridge, MA: Harvard University Press.
- Ochs, E., and B.B. Schieffelin, eds. 1979. *Developmental Pragmatics*. New York: Academic Press.
1984. Language Acquisition and Socialization: Three developmental stories and their implications. In *Culture Theory: Essays on Mind, Self and Emotion*, ed. R. Shweder and R. LeVine, 276–320. Cambridge: Cambridge University Press.
2008. Language Socialization: An historical overview. In *Language Socialization*, Vol. 8: *Encyclopedia of Language and Education*, ed. P. Duff and N. Hornberger, 2nd ed., 3–15. New York: Springer.

- Odden, H.L. 2011. The Impact of Primary Schools on the Differential Distribution of Samoan Adolescents' Competence with Honorific Language. *Current Anthropology* 52(4): 597–606.
- Orellana, M. 2009. *Translating Childhoods: Immigrant Youth, Language and Culture*. New Brunswick, NJ: Rutgers University Press.
- Pears, B.Z. 2010. Children with Two Languages. In *Cambridge Handbook of Child Language*, ed. E. Bavin, 379–97. Cambridge: Cambridge University Press.
- Peters, A. 1997. Language Typology, Prosody, and the Acquisition of Grammatical Morphemes. In *The Crosslinguistic Study of Language Acquisition*, ed. D.I. Slobin, Vol. 5, 135–99. Hillsdale, NJ: Erlbaum.
- Pfeiler, B., ed. 2007. *Learning Indigenous Languages: Child Language Acquisition in Mesoamerica*. Berlin: Mouton de Gruyter.
- Philips, S.U. 1983. *The Invisible Culture: Communication in Classroom and Community on the Warm Springs Indian Reservation*. New York: Longman.
- Pinker, S. 1984. *Language Learnability and Language Development*, Cambridge, MA: Harvard University Press.
- Pontevorvo, C., A. Fasulo, and L. Sterponi. 2001. Mutual Apprentices: The making of parenthood and childhood in family dinner conversations. *Human Development* 44(6): 340–61.
- Pye, C. 1986. Quiche Mayan Speech to Children. *J. Child Lang.* 13: 85–100.
1990. The Acquisition of Ergative Languages. *Linguistics* 28: 1291–1330.
1992. The Acquisition of K'iche' Maya. In *The Crosslinguistic Study of Language Acquisition*, ed. D.I. Slobin, Vol. 3, 221–308. Hillsdale, NJ: Erlbaum.
- Pye, C., and B.B. Pfeiler. 2013. The Comparative Method of Language Acquisition Research: A Mayan case study. *Journal of Child Language*, available on CJO2013. doi:10.1017/S0305000912000748.
- Pye, C., B. Pfeiler, L. de León, P. Brown, and P. Mateo. 2007. Roots or Edges? Explaining variation in children's early verb forms across five Mayan languages. In *Learning Indigenous Languages: Child Language Acquisition in Mesoamerica*, ed. B.B. Pfeiler, 15–46. Berlin: Mouton de Gruyter.
- Reynolds, J.F. 2008. Socializing Puros Pericos (Little Parrots): The negotiation of respect and responsibility in Antonero Mayan sibling and peer networks. *Journal of Linguistic Anthropology* 18(1): 82–107.
- Rogoff, B. 2003. *The Cultural Nature of Human Development*. Oxford: Oxford University Press.
- Rogoff, B., J. Mistry, A. Gonci, and C. Mosier. 1993. *Guided Participation in Cultural Activity by Toddlers and Caregivers*. Monographs of the Society for Research in Child Development 58(8), Serial No. 236.
- Rogoff, B., L. Moore, B. Najafi, A. Dexter, M. Correa-Chavez, and J. Solis. 2007. Children's Development of Cultural Repertoires through Participation in Everyday Routines and Practices. In *Handbook of*

- Socialization: Theory and Research*, ed. J. E. Grusec and P. D. Hastings, 490–515. New York: The Guilford Press.
- Rogoff, B., R. Paradise, R. Mejía-Arauz, M. Correa-Chávez, and C. Angelillo. 2003. Firsthand Learning through Intent Participation. *Annual Review of Psychology* 54(1): 175–203.
- Rossano, F., P. Brown, and S. C. Levinson. 2009. Gaze, Questioning, and Culture. In *Conversation Analysis: Comparative Perspectives*, ed. J. Sidnell, 187–249. Cambridge: Cambridge University Press.
- Rumsey, A., L. San Roque, and B. B. Schieffelin. 2013. The Acquisition of Ergative Marking in Kaluli, Ku Waru and Duna (Trans New Guinea). In *The Acquisition of Ergativity*, ed. E. L. Bavin and S. Stoll, 133–82. Amsterdam: Benjamins.
- Rymes, B. R. 2001. *Conversational Borderlands: Language and Identity in an Alternative Urban High School*. New York: Teachers College Press.
2008. Language Socialization and the Linguistic Anthropology of Education. In *Encyclopedia of Language and Education*, ed. P. Duff and N. Hornberger, 2nd revised ed., Vol. 8, 29–42. New York: Springer.
- Salomo, D., and U. Liszkowski. 2012. Sociocultural Settings Influence the Emergence of Prelinguistic Deictic Gestures. *Child Development* 83(6) [online].
- Sapir, E. 1949. *Selected Writings in Language, Culture and Personality*, ed. D. Mandelbaum. Berkeley: University of California Press.
- Schieffelin, B. B. 1990. *The Give and Take of Everyday Life: Language Socialization of Kaluli Children*. Cambridge: Cambridge University Press.
1993. Codeswitching and Language Socialization: Some probable relationships. In *Pragmatics: From Theory to Practice*, ed. J. Duchan et al., 20–42. Englewood Cliffs, NJ: Prentice Hall.
- Schieffelin, B. B., and E. Ochs. 1986a. Language Socialization. *Annual Review of Anthropology* 15: 163–91.
- 1986b. *Language Socialization across Cultures*. Cambridge: Cambridge University Press.
- Schneidman, L., and S. Goldin-Meadow. 2012. Language Input and Acquisition in a Mayan Village: How important is directed speech? *Developmental Science* 15(5): 659–73.
- Schneidman, L., M. E. Arroyo, S. C. Levine, and S. Goldin-Meadow. 2012. What Counts as Effective Input for Word Learning? *Journal of Child Language*.
- Shweder, R. A., J. J. Goodnow, G. Hatano, R. A. LeVine, H. Markus, and P. J. Miller. 2006. The Cultural Psychology of Development: One mind, many mentalities. In *Handbook of Child Psychology: Vol. 1. Theoretical Models of Human Development*, 6th ed., ed. R. M. Lerner, 716–92. New York: Wiley.
- Sidnell, J. 2009. *Conversation Analysis: An Introduction*. New York: Wiley.
- Slobin, D. I. 1967. *A Field Manual for Cross-Cultural Study of the Acquisition of Communicative Competence*. Berkeley, CA.: Language Behavior Research Laboratory, University of California.

- 1985a. *The Crosslinguistic Study of Language Acquisition*, Vol. 1. Hillsdale, NJ: Erlbaum.
- 1985b. *The Crosslinguistic Study of Language Acquisition*, Vol. 2. Hillsdale, NJ: Erlbaum.
- 1985c. Cross-linguistic Evidence for the Language Making Capacity. In *The Crosslinguistic Study of Language Acquisition*, ed. D.I. Slobin, Vol. 2, 1157–1256. Hillsdale, NJ: Erlbaum.
- 1992a. *The Crosslinguistic Study of Language Acquisition*, Vol. 3. Hillsdale, NJ: Erlbaum.
- 1992b. Introduction. In *The Crosslinguistic Study of Language Acquisition*, ed. D.I. Slobin, Vol. 3, 1–13. Hillsdale, NJ: Erlbaum.
1996. From “Thought and Language” to “Thinking for Speaking”. In *Rethinking Linguistic Relativity*, ed. J.J. Gumperz and S.C. Levinson, 70–96. Cambridge: Cambridge University Press.
- 1997a. *The Crosslinguistic Study of Language Acquisition*, Vol. 4. Hillsdale, NJ: Erlbaum.
- 1997b. *The Crosslinguistic Study of Language Acquisition*, Vol. 5. Hillsdale, NJ: Erlbaum.
2001. Form-Function Relations: How do children find out what they are? In *Language Acquisition and Conceptual Development*, ed. M. Bowerman and S. C. Levinson, 406–49. Cambridge: Cambridge University Press.
- Slobin, D.I., and M. Bowerman. 2007. Interfaces Between Linguistic Typology and Child Language Research. *Linguistic Typology* 11: 213–26.
- Slobin, D.I., M. Bowerman, P. Brown, S. Eisenbeiss, and B. Narasimhan. 2011. Putting Things in Places: Developmental consequences of linguistic typology. In *Event Representation in Language and Cognition*, ed. J. Bohnemeyer, and E. Pederson, 134–65. New York: Cambridge University Press.
- Snow, C.E. 1993. Issues in the Study of Input: Finetuning, universality, individual and developmental differences, and necessary causes. In *The Handbook of Child Language*, ed. P. Fletcher and B. MacWhinney, 180–93. Cambridge: Blackwell.
- Snow, C., and C. Ferguson, eds. 1977. *Talking to Children*. New York: Cambridge University Press.
- Sperber, D. 1996. *Explaining Culture: A Naturalistic Approach*. Oxford: Blackwell.
- Sperry, L. L., and D. E. Sperry. 1996. Early Development of Narrative Skills. *Cognitive Development* 11: 443–65.
- Sterponi, L. 2010. Learning Communicative Competence. In *The Anthropology of Learning in Childhood*, ed. D.F. Lancy, J. Bock, and S. Gaskins, 235–59. Lanham, MD: Altamira Press.
- Stivers, T., N.J. Enfield, P. Brown, C. Englert, M. Hayashi, T. Heinemann, G. Hoymann, F. Rossano, J.-P. de Ruiter, K.-E. Yoon, and S. C. Levinson. 2009. Universals and Cultural Variation in Turn-taking in

- Conversation. *Proceedings of the National Academy of Sciences of the United States of America* 106: 10587–92.
- Stoll, S. 2009. Crosslinguistic Approaches to Language Acquisition. In *The Handbook of Child Language*, ed. E. L. Bavin, 89–104. New York: Cambridge University Press.
- Stoll, S., B. Bickel, E. Lieven, G. Banjade, T. N. Bhatta, M. Gaenszle, N. P. Paudyal, J. Pettigrew, I. P. Rai, M. Rai, and N. K. Rai. 2012. Nouns and Verbs in Chintang: Children's usage and surrounding adult speech. *Journal of Child Language* 39(2): 284–321.
- Strömquist, S., H. Ragnarsdóttir, K. Toivainen, et al. 1995. The Inter-Nordic Study of Language Acquisition. *Nordic Journal of Linguistics* 18: 3–29.
- Strömquist, S., and L. Verhoeven, eds. 2004. *Relating Events in Narrative: Typological and Contextual Perspectives*. Mahwah, NJ: Erlbaum.
- Stross, B. 1969. Language Acquisition by Tenejapa Tzeltal Children. Language Behavior Research Laboratory Working Paper No. 20. University of California, Berkeley.
- Takada, A. 2005. Early Vocal Communication and Social Institution: Appellation and infant verse addressing among the Central Kalahari San. *Crossroads of Language, Interaction, and Culture* 6: 80–108.
- Talmy, L. 1985. Lexicalization Patterns: Semantic structure in lexical forms. In *Language Typology and Semantic Description*, Vol. 3: *Grammatical Categories and the Lexicon*, ed. T. Shopen, 36–149. Cambridge: Cambridge University Press.
- Tardif, T. 1996. Nouns are Not Always Learned Before Verbs: Evidence from Mandarin speakers' early vocabularies. *Developmental Psychology* 32(3): 492–504.
- Tardif, T., P. Fletcher, W. Liang, Z. Zhang, N. Kaciroti, and V. A. Marchman. 2008. Baby's First 10 Words. *Developmental Psychology* 44(4): 929–38.
- Tomasello, M. 1999. *The Cultural Origins of Human Cognition*. Cambridge, MA: Harvard University Press.
2003. *Constructing a Language: A Usage-Based Theory of Language Acquisition*. Cambridge, MA: Harvard University Press.
2008. *Origins of Human Communication*. Cambridge, MA: MIT Press.
- Tomasello, M., M. Carpenter, J. Call, T. Behne, and H. Moll. 2005. Understanding and Sharing Intentions: The origins of cultural cognition. *Behavioral and Brain Sciences* 28: 675–735.
- Van Valin, R. 1992. An Overview of Ergative Phenomena and their Implications for Language Acquisition. In *The Crosslinguistic Study of Language Acquisition*, ed. D. I. Slobin, Vol. 3, 15–37. Hillsdale, NJ: Erlbaum.
- Vygotsky, L. S. 1978. *Mind in Society: The Development of Higher Psychological Processes*, ed. M. Cole, V. John-Steiner, S. Scribner, and E. Souberman. Cambridge, MA: Harvard University Press.
- 1987 [1934]. *Thinking and Speech*, trans. N. Minick. New York: Plenum Press.

- Watson-Gegeo, K. A. 1992. Thick Explanation in the Ethnographic Study of Child Socialization and Development: A longitudinal study of the problem of schooling for Kwara'ae (Solomon Islands) children. In *The Production and Reproduction of Children's Worlds: Interpretive Methodologies for the Study of Childhood Socialization*, ed. W. Corsaro and P. J. Miller, 51–66. San Francisco, CA: Jossey-Bass, Inc.
- Watson-Gegeo, K. A. and S. E. Nielsen. 2003. Language Socialization in SLA. In *The Handbook of Second Language Acquisition*, ed. C. J. Doughty and M. H. Long, 155–77. New York: Basil Blackwell.
- Weisleder, A., and A. Fernald. In press. How Social Environments Shape Children's Language Experiences and Influence Lexical Development. In *Language in Interaction: Studies in Honor of Eve V. Clark*, ed. A. Inbal, M. Casilas, C. Kurumada, and B. Estigarribia. Amsterdam: John Benjamins.
- Whitehouse, H., ed. 2001. *The Debated Mind: Evolutionary Psychology vs. Ethnography*. Oxford: Berg.
- Whiting, B. B., and J. W. M. Whiting. 1975. *Children of Six Cultures: A Psycho-Cultural Analysis*. Cambridge, MA: Harvard University Press.
- Whorf, B. L. 1956. *Language, Thought, and Reality*. Boston, MA: MIT Press.
- Wilkins, D. P. 2008. Same Argument Structure, Different Meanings: Learning 'put' and 'look' in Arrernte. In *Crosslinguistic Perspectives on Argument Structure: Implications for Learnability*, ed. M. Bowerman and P. Brown, 141–66. Mahwah, NJ: Lawrence Erlbaum.
- Wootton, A. J. 1997. *Interaction and the Development of Mind*. Cambridge: Cambridge University Press.