Constructing a Language: A Usage-Based Theory of Language Acquisition. By Michael Tomasello. Cambridge, MA: Harvard University Press, 2003, 388 pp., \$45.00 (hardcover).

Child psychiatrists, pediatricians, and other child clinicians need to have a solid understanding of child language development. There are at least four important reasons that make this necessary. First, slowing, arrest, and deviation of language development are highly associated with, and complicate the course of, child psychopathology. Second, language competence plays a crucial role in emotional and mood regulation, evaluation, and therapy. Third, language deficits are the most frequent underpinning of the learning disorders, ubiquitous in our clinical populations. Fourth, clinicians should not confuse the rich linguistic and dialectal diversity of our clinical populations with abnormalities in child language development.

The challenge for the clinician becomes, then, how to get immersed in the captivating field of child language acquisition without getting overwhelmed by its conceptual and em-

pirical complexity. In the past 50 years and since the seminal works of Roger Brown, Jerome Bruner, and Catherine Snow, child language researchers (often known as developmental psycholinguists) have produced a remarkable body of knowledge. Linguists such as Chomsky and philosophers such as Grice have strongly influenced the science of child language. One of the major tenets of Chomskian linguistics (known as generative grammar) is that children's capacity to acquire language is "hardwired" with "universal grammar"—an innate language acquisition device (LAD), a language "instinct"—at its core. This view is in part supported by the assertion that the linguistic input that children receive is relatively dismal and of poor quality relative to the high quantity and quality of output that they manage to produce after age 2 and that only an advanced, innate capacity to decode and organize linguistic input can enable them to "get from here (prelinguistic infant) to there (linguistic child).'

In "Constructing a Language," Tomasello presents a contrasting theory of how the child acquires language: It is not a universal grammar that allows for language development. Rather, human cognition universals of communicative needs and vocal-auditory processing result in some language universals, such as nouns and verbs as expressions of reference and predication (p. 19). The author proposes that two sets of cognitive skills resulting from biological/phylogenetic adaptations are fundamental to the ontogenetic origins of language. These sets of inherited cognitive skills are intentionreading on the one hand and pattern-finding, on the other. Intention-reading skills encompass the prelinguistic infant's capacities to share attention to outside events with other persons, establishing joint attentional frames, to understand other people's communicative intentions, and to imitate the adult's communicative intentions (an intersubjective form of imitation that requires symbolic understanding and perspective-taking). Pattern-finding skills include the ability of infants as young as 7 months old to analyze concepts and percepts (most relevant here, auditory or speech percepts) and create concrete or abstract categories that contain analo-

Tomasello, a most prominent developmental scientist with research foci on child language acquisition and on social cognition and social learning in children and primates, succinctly and clearly introduces the major points of his theory and his views on the origins of language in the initial chapters. In subsequent chapters, he delves into the details by covering most language acquisition domains, namely, word (lexical) learning, syntax, and morphology and conversation, narrative, and extended discourse. Although one of the remaining domains (pragmatics) is at the core of his theory and permeates the text throughout, the relative paucity of passages explicitly devoted to discussing acquisition and pro-

duction of speech sounds (phonology) is somewhat surprising, given that he postulates auditory pattern-finding as a biological skill fundamental for language acquisition. Similarly, while intention-reading (pragmatic) deficiencies are illustrated with examples from individuals with autism and semantic-pragmatic disorders, a parallel clinical illustration of (phonological) pattern-finding deficits is curiously absent. In this way, extensive work on deficits in phonological processing and awareness in language disorders, reading problems, and language-based learning disorders (e.g., dyslexia) is not mentioned, although it is potentially supportive of Tomasello's theory.

According to the author, it is the social-cognitive dexterity and drive to read and understand the intentional and mental states of others that pave the path of language learning. The idea that language is primarily acquired as a reaction to the human world that surrounds the child squarely contrasts with Chomskian thought. Acknowledging this, Tomasello systematically refutes Chomsky's theory, including the claim that there is poverty of stimuli for language, by explaining how language is acquired from the first utterance to complex clauses. A child's earnest attempt to understand others while interacting socially and linguistically is central to the acquisition of language. It is while reading adults' intentions and jointly sharing attention that children collect and segment the necessary language components, recognize speech patterns, and conceptualize referents to later create new constructions of their own. Acquisition of the more complex grammatical items (such as binding principles of pronouns) is developmentally staggered, which demonstrates learning of these constructions rather than an always-present innate ability. The usage-based theory views grammar as a derivative of language, not a prerequisite. Using suitable referential situations, children form new constructions and are, in effect, able to "get from here to there" without a biological adaptation for universal grammar.

Recognizing that child language development is a process integrated with sociocognitive and attentional development has important implications for our field. If one takes to heart our initial tenet that child clinicians need to have a solid understanding of child language development, this book provides this understanding while broadening the clinical perspective considerably. Although this book does not directly address emotional/behavioral development, it suggests fertile ideas with potential application in the four important areas mentioned above. First, psychiatrically ill children's joint attention or pattern-finding skills may present either deficits associated with language deficit or strengths that may potentially mitigate language deficit. Second, linguistic, communicative, and cognitive processes (joint attentional frames, pattern-finding that enables concrete and abstract analogies, need to understand others' viewpoints, normative symbolization) border with other processes involved in emotion/mood regulation, clinical evaluation, and therapy. Finally, the new normative dimensions proposed frame our understanding of child language learning, with implications for learning and language disabilities (third) and for work with linguistically diverse populations (fourth).

With a commendable emphasis on empirical research, Tomasello steers clear of unsupported ideas or philosophies and makes a strong case for his theory with applications and empirical references. A rich overview of language acquisition is put forth in an accessible manner, without excessive use of technical terms, and launches the reader into new directions in the psychological understanding of language acquisition, creating an approachable resource for those who live outside the world of linguistics. Above all, this book provides a fascinating illustration of a conceptual model that integrates many observational pieces into a coherent whole. Novel conceptual frameworks such as this are urgently needed in child psychiatry to advance the field by encouraging research to challenge prevailing views.

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