This volume, dedicated to Martin Braine, is the outcome of a conference held at the Max Plank Institute in Nijmegen in 1995. The first of four parts covers general theoretical issues; part 2 focuses specifically on word learning, particularly nouns; in part 3, entities, individuation and quantification are examined; and in part 4, relational concepts in form-function mapping, with a focus on the influence of language-specific properties. Two main issues link the nineteen chapters: whether concepts are language-independent or constructed through language, and the role of experience in conceptual development. As emphasized by the editors in the introduction, past attempts to relate cognitive and linguistic development have not been too successful, possibly because of the focus on language structure within theoretical linguistics. Recent research on the domain-specific cognitive abilities of infants and on semantic and cross-linguistic aspects of language acquisition have provided new insights, and thus it is timely to reexamine the links.

There are three excellent chapters in part 1, “Foundation issues”: one by Jonas Langer on cognition and linguistic ontology, one by Alison Gopnik on Whorfian influence, and one by Elizabeth Spelke and Sanna Tsivkin on conceptual change in the domains of space and number. The issues they discuss are complex, and I have not attempted to give an overview here.

Three authors take up issues relating to the constraints approach to word learning. There are different opinions about whether children are guided in the acquisition of new words by innate principles or by learned biases. A main part of Linda Smith’s chapter in part 2 is an insightful review of research on the “shape bias.” Research findings reveal that children attend to shape in naming tasks by 24 months of age, but this attention develops, becoming more specific to specific contexts (p. 111). Smith, who follows a biological perspective, views specialization as emerging from general processes. While domain-specific knowledge is first the product of development, it can shape later development.

Michael Tomasello also argues against innate principles; he assumes that children learn words in the same way as they learn other cultural skills.
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familiar with Tomasello’s work will know that he takes a social-pragmatic perspective. He argues that the link between conceptualizations and language is learned in communicative interactions: Children attempt to understand the intentional actions of others as they engage in social interaction, and the adults’ use of language draws children’s attention to various aspects of the situation. Tomasello suggests that the infant’s ability to understand others as intentional agents emerges at about 12 months of age.

The third chapter on word learning is by Paul Bloom, who takes a strong position against both the innate-constraints and the learned-biases approaches. Bloom puts word learning into a wider perspective, the general capacities for learning and memory in humans. He offers alternative explanations for research findings that support the constraints approach to language acquisition, and he argues that children’s linguistic and conceptual resources underlie their acquisition and use of words, making constraints redundant. Bloom makes the claim that other aspects of language are acquired through dedicated neural mechanisms, but many authors in this volume would not agree.

Susan Carey’s chapter is one of six in part 3. She suggests that for some grammaticized notions there is support for the continuity/universalist position, but the Whorfian alternative is true for others. This makes for interesting reading. Carey focuses on the conceptual and linguistic representation of number, examining specifically which of the representational resources made use of by languages in expressing number concepts are available to the prelinguistic infant. The evidence is clear: Some conceptual distinctions are not induced from experience with language; they are clearly not unique to humans. Children master the symbolic representation of integers as they come to understand the counting system of their language, a cultural construction. Thus the Whorfian position can also be supported.

Dedre Gentner and Lera Boroditsky support the view that some parts of the semantic system are cognitively driven, but others are linguistically driven. They propose an individuation continuum, pointing out that languages differ in what they treat as automatically individuated, and they hypothesize that less easily individuated objects should be acquired after those that are more readily individuated. Since Gentner’s (1982) claim that nouns are learned before verbs, a number of researchers have reported differences across languages, and a major section of this chapter responds to some of the questions raised, with specific language examples cited. The conclusion drawn is that the accessibility of verbs in the input affects how early they will be acquired.

In discussing the reality of cultural diversity, John Lucy and Suzanne Gaskins emphasize the comparative perspective for research on language and cognition. The chapter draws on Lucy’s (1992) study, and a follow-up study, with speakers of American English and Yucatec Maya, in which speakers of Yucatec Maya were found to prefer material as the basis of classifying while English speakers pre-
ferred shape. Lucy and Gaskins discuss developmental patterns in children aged 7–9 years from these two language groups; they suggest that some reorganization takes place in the relation between language and thought during the middle childhood years.

A different emphasis on context is presented in the chapter by Werner Deutsch, Angela Wagner, Renate Burchardt, Nina Schultz, and Jörg Nakath. The authors report that personal deixis is learned at different rates by singletons, twins, and non-twins who have siblings. That is, the social context in which language is acquired influences the rate at which children use the pronominal forms appropriate for self-reference.

Patricia Brooks, Martin Braine, Gisela Gia, and Aria da Graça Dias examine the early availability of canonical collective and distributed representations of the universal quantifiers each and all. They report on data from children speaking English, Portuguese, or Mandarin, showing similar patterns for a collective interpretation for the quantifier for all in both Portuguese and Mandarin. Adding to the discussion of children’s interpretations of universal quantifiers, Ken Drozd argues that young children treat all and every as weak quantifiers – that is, like two, some and many. Their interpretation errors are shown to be context-dependent. Drozd discusses problems with previous pragmatic explanations for these errors and links his own explanation to Spelke and Tsvkin’s arguments (in this volume) for two preverbal number systems, one for small numbers and one for larger quantities.

Papers by Eve Clark, Dan Slobin, Heike Behrens, Melissa Bowerman and Sonja Choi, and Stephen Levinson make up part 4. Clark’s position is that acquisition is a product of cognitive and social factors. Since young children make the sorts of distinctions that are grammaticized in some languages but not in their own, there is some support for a set of general conceptual categories underlying language. As emergent categories, not available in the input, they must be accessible at the conceptual level. One example Clark presents is the distinction between inherent properties and those conferred as the result of an action, a distinction made in Spanish but not English; yet the distinction is made by a young English-speaking child.

Slobin argues against the view that a child is predisposed to relate elements of meanings to specific grammatical forms, as proposed, for example, by Pinker 1984. He suggests that children are influenced by factors similar to those affecting which semantic notions fail to become grammaticized in languages (e.g. color). Social-pragmatic, environmental, and linguistic factors all play roles. In a chapter packed with examples, Slobin discusses many of the problems inherent in assuming a dichotomy between closed and open classes. As he states, it is not clear at what stage in its history a form can be thought of as a “true grammatical morpheme” (431) or when a “true grammaticizable notion” develops, because languages change and that change is gradual, embedded in communication pro-
cesses. Slobin suggests a cline of grammatical morphemes (from lexical-content words to specialized grammatical morphemes) and a range of classes (from almost entirely open to almost entirely closed).

The topic of Behren’s chapter is the development of time concepts and tense in German. Behrens considers whether cognitive development constrains the development of tense, whether universal concepts assist children in the mapping between form and meaning, or whether the particular language structures and forms influence the child from the onset. Data from children acquiring German are used to illustrate that by the time they use past markers productively the children are already attuned to language-specific properties; they are not constrained by a set of assumed universal concepts.

Spatial categories and the influence of language-specific properties on their acquisition is the topic of three chapters. Bowerman and Choi have published a number of papers comparing the structuring of spatial semantics in English and Korean. Their research has provided clear evidence against a universal set of spatial meanings that are mapped onto language forms. Their findings show that children develop concepts on the basis of their exposure to semantic patterns in a particular language. In this chapter, Bowerman and Choi do not rule out inherent biases; they propose gradients of perceived similarity between situations of different types as conceptual prerequisites to semantic learning (503). Brown’s chapter also stresses language-specific differences in the semantics of space. She discusses the complex three-way ambiguity in the frame of reference underlying the use of spatial terms in Tzeltal and argues that there is no evidence that Tzeltal children are influenced by a set of universal spatial concepts. Rather, the children are influenced by lexicalization and typological features of the language, acquiring language-specific meanings for verbs of motion early in development. Another Mayan language, Tzotzil, is discussed by Lourdes de León, who argues that children acquiring Tzotzil are influenced by the input language. In contrast to English-speaking children, whose early expressions include ‘up’ and ‘down’, the Tzotzil children do not express vertical path in their first productions. They do encode verticality for downward motion, but conflate this with manner, figure, and ground. Of particular interest is the use by the youngest children of specific motion verbs, as opposed to a small set of general verbs, as is typical for other languages.

In his concluding chapter, Stephen Levinson discusses some of the findings from studies on spatial cognition undertaken by members of his Cognitive Anthropology group. Given the vast variability across languages, the complexity of the mapping task between form and meaning is enormous. Levinson proposes three levels of complexity. However, as he points out, adults provide children with numerous behavioral clues to solve the mapping problem.

Although much research has been conducted since the chapters for this volume were completed, the body of research that has been drawn together makes

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this an excellent reference. As in any volume of this size and breadth, not all the chapters are of equal quality or of equal interest to all readers. I found chapters in parts 2 and 4 extremely useful, even though I was already familiar with much of the research reported; the chapters in part 1 were stimulating, as were several in part 3. Language acquisition researchers will find much to digest and should find the overviews of research in specific areas useful. The focus on Whorf and the influence of language on conceptual development, as opposed to the mapping of language onto a universal set of concepts, will be of interest to researchers of language and society, as well as to language acquisition researchers.

REFERENCES


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This volume revisits, as its title states, the theory and practice of reversing language shift (RLS) first proposed by Fishman in 1991. A dozen of the original case studies are reanalyzed and several more are added, producing a rich source of detail on some of the specific situations of language shift and efforts to reverse it. Fishman contributes introductory and concluding chapters as well as one of the case studies (Yiddish); other authors cover Navajo, New York Puerto Rican Spanish, Québec French, Otomí, Quechua, Irish, Frisian, Basque, Catalán, Oko, Andamanese, Ainu, Hebrew, immigrant languages in Australia, indigenous languages in Australia, and Maori. The resulting book provides a wealth of information about language shift and public policy directed toward RLS, but its aims are broader than that.

In particular, the principal proposition of this book is to reexamine the ideas set forth in 1991, and to revise, supplement, or abandon them on the basis of case