Pretending and imagination in animals and children

It is well known that children's activities are full of pretending and imagination, but it is less appreciated that animals can also show similar activities. This is the first book to focus on comparing and contrasting children's and animals' pretenses and imaginative activities. In this book, overviews of recent research present conflicting interpretations of children's understanding of the psychology of pretense, and describe sociocultural factors that influence children's pretenses. Studies of nonhuman primates provide examples of their pretenses and other simulative activities, explore their representational and imaginative capacities and compare their skills with children's. Although the psychological requirements for pretending are controversial, evidence presented in this volume suggests that great apes and even monkeys may share capacities for imagination with children, and that children's early pretenses may be less psychological than they appear.

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This book is dedicated
to the memory of
Ina Č. Užgiris

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Foreword

by Sue Taylor Parker

The collection of articles herein focuses on the mysterious liminal region that lies between pre-symbolic and symbolic abilities. The transition between the two remains the least charted area, most intriguing of all developmental transformation in human childhood, and the least understood of all transformations in hominoid evolution. The mystery is deepened by disagreements over terminology. *Simulation, imitation, pretense, symbolic play, representation, meta-representation, theory of mind, intentionality,* and *imagination*, the very definition of these terms is contested territory. Authors of articles in this volume do not simplify the task because many of them disagree on these matters. Rather, their articles provide readers with a fascinating array of perspectives on these and related concepts. They also provide comparative data on a rich array of great ape species: humans, bonobos, chimpanzees, gorillas, and orangutans, plus some macaque monkeys.

Following in the wake of his earlier work on deception, self-awareness, and anthropomorphism, Robert Mitchell's new collection carries us further into contested twilight zones between infancy and childhood, and between other great ape and human minds. The juxtaposition between animals and children in the title is more than accidental since many of the same frameworks have been used to study and compare children of our species with those of our closest living relatives, the nonhuman great apes, an approach that has come to be known as comparative developmental evolutionary psychology (Parker, 1990).

One of the key debates in this volume, for example, revolves around Bateson's (1956) idea that the play face in monkeys constitutes meta-communicative, intentional deployment of gestures to convey such messages as "this is only play" or whether it is simply an evolved commu-

nicative display that directly reflects the animals motivational state. In other words, authors differ over whether or not "metacommunication" and perhaps pretence exists in monkeys. At one extreme, Reynolds argues that "evolutionary changes in primate social organization presuppose the cognitive functions of pretence and simulation." At the other extreme Gómez and Martín-Andrade argue that, even in gorillas, apparent examples of pretend play can better be explained by such precursors of true pretense as the ability to decontexualize and mentally represent actions.

Similar differences exist among human developmental psychologists regarding the emergence of pretence and symbolism. Many draw heavily on Piaget's stages of developmental of imitation and pretend play. Some, like Leslie (1988), argue that the earliest forms of pretend play with objects representing other objects entails meta-representation whereas others such as Perner (1991) argue for intermediate stages, a position taken by Veneziano and Fein *et al.* in this volume.

Before exploring all this, readers will find Mitchell's introductory chapter provides a useful roadmap to these and other contrasts in viewpoint of various contributors. Likewise, his chapter on the history of ideas about pretense in animals and humans provides a much-needed perspective on the incredible persistence of many of these issues. Finally, Mitchell's concluding chapter and that of Roberts and Krause, explicitly address implications of comparative studies of pretense for understanding the evolution of human culture and cognition.

Given the developmental and evolutionary proximity between pretense and early language, perhaps it is inevitable that interest in the developmental and evolutionary emergence of language lurks behind much of the work on pretense. Piaget (1945/1962) and others have long argued for the common origins of symbolic play, language, and drawing. In recent years, developmental psychologists have moved in two opposing directions in their modeling of language acquisition. On the one hand, Pinker (1994) and other neo-Chompskians have emphasized the early, virtually imperturbable unfolding of innate grammar. On the other hand, Nelson and other constructivists have emphasized the prolonged and contingent course of language acquisition: "The child does not immediately make a leap from prelinguistic to linguistic, or from sensorimotor to representational, or any of the other stages that have been proposed as explanations of developments between 1 and 3 years of age. The transition is long and composed of a complexity of developments in different parts of the social-linguistic–cognitive system" (Nelson, 1996, p. 120).

These two positions, in turn, project onto two different scenarios for the pace of language evolution. According to the first, language evolved recently and rapidly. According to the second, symbolic abilities began to evolve early in hominid evolution, indeed in ape evolution, but became fully linguistic only recently. Contributors to this volume generally fall more on the constructivist side.

Those who enjoy contending hypotheses and a rich pallet of color and flavor in their comparative studies, will surely find a feast within! Choose your partner and let the dance begin again!

Preface and acknowledgments

As the only comparative psychology graduate student at Clark University, Massachusetts, I was surrounded by graduate students studying human development assured in their belief that humans were distinctly different psychologically from other animals. When imaginative pretense was brought up as one of many "uniquely human" capacities (including language, intentional deception, imitation, and self-recognition), I mentioned the chimpanzee Viki's imaginary pulltoy (Hayes, 1951), to the general response that it was only one example compared to the myriad instances exhibited by children. The intellectually stimulating debates that followed my frequent disagreements led to this book, and fueled my desire to publish three other books, which I initiated prior to this one – *Deception: perspectives on human and nonhuman deceit* (Mitchell & Thompson, 1986), *Self-awareness in animals and humans* (Parker, Mitchell & Boccia, 1994), and *Anthropomorphism, anecdotes, and animals* (Mitchell, Thompson & Miles, 1997). I hope the skills I learned from my talented co-editors – all ardent educators – are evident in my first run as solo editor.

While I was at Clark, Ina Užgiris introduced me to Paul Guillaume's (1926/1971) *Imitation in children* in her course on "Imitation, internalization, and identification," and to Piaget's (1947/1972) *Psychology of intelligence* in her course on "Piaget's theory." Reading Guillaume and Piaget was a gift, but reading them with Ina's guidance was an extraordinary gift, for which I am grateful.

I would like to thank Sue Parker, Anne Russon, and Angeline Lillard for editorial assistance and support, Mark Spina, Shyamala Venkataraman, Cathy Clement, and Ron Mawby for intellectual stimulation amidst years of friendship, Eastern Kentucky University (EKU) for financial support, and my students at EKU for putting up with my

frequent absences to work on this book. I also appreciate the patience of the authors in this volume, as well as my editor Tracey Sanderson, none of whom ever complained about the year-long delay in publication (precipitated in part by my grandmother's extended dying during the summer of 2000). I also wish to acknowledge the first-hand delights of pretending with my young friends Benjamin Mawby, Elizabeth Vincelli, and Elliot Mawby, and the continuing affirmation, love, and support of my partner Randy Huff.