couple of decades that this is often not all there is to it, and that the wider social context of communication may have an important part to play. The best known case is that of "eavesdropping," a term used (slightly at odds with its everyday sense) to cover instances where third parties extract information from a communicating pair, whether or not the primary interactants benefit from providing it.

Much of the development of these ideas is owed to Peter McGregor and his colleagues. For a long time, the data seemed to lag behind the theory: while it was clear that networks and eavesdropping should be important, there were few demonstrations that they were so in natural communication situations. But this is slowly changing. Although it remains the case that convincing data are almost entirely derived from neat experiments on territorial birds and on fish in the laboratory, this volume illustrates that there are now a wide variety of studies where such processes seem likely. That a volume of 26 chapters, which covers a range of taxa from katydids and fiddler crabs to primates and dolphins, can be devoted to the subject shows that it is indeed coming of age. The book is tightly edited, each of its four parts being preceded by an editorial introduction setting the scene. The first part deals with communication networks as such, the second part discusses different contexts in which they are found, Part III explores their occurrence in various taxa, and the final part examines their relevance to broader issues. The whole is a beautifully produced book that will be a benchmark for a growing field and will force many of us interested in animal communication to think more broadly than has been our habit.

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The Genesis of Animal Play: Testing the Limits.

By Gordon M Burghardt. A Bradford Book. Cambridge (Massachusetts): MIT Press. $50.00. xvii + 501 p; ill.; animal, name, and subject indexes. ISBN: 0-262-02543-4. 2005.

For the past quarter of a century, the benchmark volume on animal play has been Robert Fagen's 1981 work, *Animal Play Behavior* (New York: Oxford University Press). The material therein has periodically been updated in other publications, particularly by Marc Bekoff, as well as by Fagen himself, most notably in a study of juvenile survival and play in brown bears (R Fagen and J Fagen. 2004. *Evolutionary Ecology Research* 6(1):89–102). The publication of Burghardt's *The Genesis of Animal Play* marks the establishment of a new benchmark. For

the next generation of investigators, I expect this volume will become what Fagen has been to the last. It is a masterful piece of work.

Like Fagen and many others who have addressed the subject, Burghardt reviews the history of theories of play, and provides diagnostic criteria and a classificatory scheme for the various types of play. The customary lists of examples and anecdotes goes beyond what is customary. The author provides detailed accounts of what may be regarded as play in a great array of species not normally considered as playful; even ants, bees, and cockroaches come under his lens, say nothing of the snakes and lizards that are the usual subjects of his studies. I was pleased that he also included a discussion of mental play, an often overlooked subject—to which I had once alluded in the final paragraph of the second edition of *Behavioral Aspects of Ecology* (P Klopfer. 1973. Englewood Cliffs (NJ): Prentice Hall).

In my view, Burghardt's most significant finding is that play needs to be regarded as a heterogeneous phenomenon, taking different forms and serving different functions in different species and different contexts. This contrasts sharply with the unified approach that so many theorists have adopted. He leans often on literary allusions, reminding us that play may also be cruel, addictive, and disastrous as well as joyful and entertaining, yet more indication of its complex character. The lesson for the future is clear: we need detailed, long-term studies of play behavior in individual species more than grand theories that rest upon the assumption of unitary causes and effects.

One minor error in this splendid volume must be corrected: Burghardt states that Wagner's Ring Cycle can be heard in 15 hours. My recording of the Metropolitan Opera's most recent production ran for 15 hours and 40 minutes, intermission excluded.

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HUMAN BIOLOGY & HEALTH

RACE TO THE FINISH: IDENTITY AND GOVERNANCE IN AN AGE OF GENOMICS. *Information Series.* *By Jenny Reardon. Princeton (New Jersey): Princeton University Press.* $55.00 (hardcover); $17.95 (paper). xiii + 237 p; index. ISBN: 0-691-11856-6 (hc); 0-691-11857-4 (pb). 2005.

The Human Genome Diversity Project (HGDP) was the brainchild of Stanford geneticist Luca Cavalli-Sforza, in the wake of the popularity and sup-