

about the world and other people. And this has turned out to be true. One of the most important, and by now uncontroversial, findings from the past 30 years of research is that infants and preschoolers are far more cognitively sophisticated than we once thought. Similarly, developmentalists have discovered that there are complex interactions among caregivers and infants and young children that include interpretations on all sides.

In the same way, although Konner describes both innately triggered behavior and learning, his versions of both the innate and the learned are extremely simple—his catalog of learning mechanisms could have come out of a 1950s textbook—and lack the abstractness and complexity we actually see even in infancy. Developmental psychologists now believe that children have complex and abstract representations of the world in place very early and that those representations are then revised, modified, and reshaped by experience. Konner's old-fashioned view of children leads to what are simply mistakes. For example, he says repeatedly that “theory of mind” (our ability to understand the mental states of others) emerges only in middle childhood, after basic social relationships have already been formed. That was the standard view in Piaget's day, but 20 years of research have made it clear that even infants learn about the minds of others and that such learning is at its peak between ages two and five. Konner's mistake is important because the early emergence of theory of mind tells us that, from the very beginning, children are actively interpreting and understanding the people around them.

Human beings—even, indeed especially, the youngest—perpetually change what they think and what they do in the light of experience. This allows us to invent a greater variety of physical and social environments than does any other species and to pass information about those environments on to the next generation. The challenge is to show, in detail, how these capacities evolved. Exactly how do our minds differ from those of our closest relatives? What happened to bring about the change from our ancestors? Our unprecedentedly long human childhood is likely to play a key role in resolving those questions. We can hope that a magisterial survey of the next 20 years of research into the evolution of childhood will provide more satisfying answers.

References

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EXHIBITION

Descended from Refuse

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Imagine that it is 3010 and a group of paleontologists are excavating a site in what is currently the small Swiss city of Neuchâtel. The researchers will be surprised with what they might find: biological forms that evolved skeletons made out of cardboard and plastic and whose remains (including some nicely preserved complete life cycles) are clustered within boxes with transparent lids. What geological process could have led to the preservation of this peculiar trove of fossils? The answer probably lies somewhere in the imagination of the artist François Riou, whose works are highlighted in the exhibition *Espèces en voie d'apparition*, currently at Neuchâtel's Museum of Natural History.

The forms and color patterns of living things have long been a source of inspiration for artists. The particularity of Riou is that his creatures have all evolved from everyday

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An inordinate fondness for insects. (Left) François Riou's *Muséum mutation* (detail); (right) *Escalator* (detail).

human implements. Scouring such wild jungles as supermarkets, the artist is constantly on the lookout for whatever beasts and bugs lurk not behind but under the guise of food, clothing, and other items. Recycling mundane implements—such as beer caps and used mobile phone keyboards that seem to sprout jointed legs and colorful elytra—he brings sudden life to what otherwise would quickly have turned into pieces of refuse. As is fitting for creative temperaments, the

myriad of Riou's fauna evidences an inordinate fondness for insects.

Riou's mortal hand framed the fearful symmetry of living things, which he reveals in objects that we normally disregard. This symmetry is what makes his creatures seem familiar and recognizable. And in turn, that familiarity causes an actual beetle hidden

among the other pieces of the exhibition to remain unnoticed by unwary visitors.

Shapes and colors are not the only simulacra of animals displayed in the exhibition. The collection arrayed about the room also includes shadows, tracks, and skeletons. Again our brains fill in the missing information, and all of a sudden we see a mop flying through the room or a predator lurching on a wall. While other exhibits and activities at the museum invite visitors to learn about the biodiversity of Neuchâtel, *Espèces en voie d'apparition* offers an intriguing perspective on how we perceive organic forms.

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