

Economists who want to find a succinct, competent, and informed discussion of emissions trading in an international context will want to add *Global Emissions Trading* to their library. A more important audience are those, economists or not, who should consider carefully whether a global policy to limit greenhouse gas emissions can do without international emissions trading.

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## Z Other Special Topics

*Second Nature: Economic Origins of Human Evolution.* By Haim Ofek. Cambridge, New York and Melbourne: Cambridge University Press, 2001. Pp. 254. \$74.95, cloth; \$27.95, paper. ISBN 0-521-62534-3, pbk.

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This book is guided by an intriguing hypothesis: that humans, alone among species, have been genetically selected for exchange. Ofek essays to outline the causes and (especially) consequences of this.

If exchange is defined broadly, other species can be seen to engage in “exchange.” There is symbiotic exchange, where members of different species provide reciprocal services. There is kin exchange, wherein members of various species are observed to trade material goods for affection. Only humans, though, are observed to trade goods for goods with strangers of the same species.

Exchange is so ubiquitous in our lives that we can too easily assume that it is straightforward. Yet exchange requires various abilities, notably communication, quantification, abstraction, and orientation in time and place. It also depends on the existence of some level of trust among participants.

It is now widely accepted among psychologists and students of evolution—but not economists—that the human mind is “modular.” To use a computer analogy, the mind is better characterized as a set of loosely linked programs than as one coordinated master program. It is thus quite plausible that we would have been selected for exchange, if exchange enhanced the genetic fitness of our ancestors. Ofek could have speculated here on whether we are “programmed” only for the sorts of exchange our distant ancestors faced, and thus

limited in our abilities with respect to, say, stock markets? (This point is addressed by Alexander J. Field in *Altruistically Inclined?*, 2001, Ann Arbor: University of Michigan Press.)

How would the first slight predilection toward trade have been selected for? Ofek argues that our ancestors would have faced some trade opportunities where the gains from trade were huge. Hunters who had killed an animal too large for them to eat would have a great incentive to trade excess food for less perishable goods. Ofek is even more impressed with the difficulties our ancestors would have faced in starting and maintaining fires; a family with a maintained fire should view selling access as costless, while a family without fire would value access highly. I would have liked Ofek to discuss how such trades among neighbors could have led to openness toward trade with strangers.

An alternative view would be that our capacity for exchange is merely a side effect of our greater mental capacity. Ofek is too dismissive here, noting that humans would not have been selected for more reasoning power than was useful to them. But modern humans use their brains for a host of tasks that they were not selected for. Ofek argues that our general intelligence is largely a side effect of selection for exchange, rather than the reverse. Decades ago, it was widely thought that our intelligence had been selected to aid us in tool-making. It is now appreciated among students of evolution that it was likely the complexities of social interaction that created the greatest selection pressure for intelligence. Ofek focuses exclusively on the advantages of possessing superior trading skills. Notably, within his analysis our tool-making capacity is facilitated by the division of labor that is associated with exchange.

Most of the book deals with the consequences of our capacity for exchange, and can be appreciated even by those who doubt Ofek’s arguments regarding the provenance of that capacity. Our stomachs have been selected to require a diversity of foods difficult to obtain without exchange in most circumstances. Hominids could not have moved from an eat-as-you-go to a hunter-gatherer lifestyle that depended upon cooperation and specialization unless already predisposed to exchange. Later, settled agriculture was almost everywhere dependent upon exchange with associated pastoral groups. And widespread human exploitation of fire also depended on exchange.

As Adam Smith noted, division of labor is limited by the extent of the market. Anthropologists have long recognized the early division of labor among humans: hunters, gatherers, specialized toolmakers, and so on. Yet they have rarely appreciated that division of labor depends on a capacity for exchange. Ofek suggests that humans display much greater genetic diversity than is observed in other species (except those that have been bred for different characteristics), and that such diversity could only have been fitness enhancing in human communities already characterized by specialization and exchange.

Despite a much greater geographic spread than any other species, humans have not formed sub-species. This would seem to indicate that there was enough cross-mating over the millennia to maintain a common gene pool. Ofek associates this in turn with the existence of trade over long distances. Ofek also argues that continental migration would not have occurred without exchange, for those moving into (especially hostile northern) new areas would never find all that they needed immediately.

Ofek does not return to his tantalizing early suggestion that some level of trust is essential to exchange. One could imagine that a sense of fairness also is conducive to exchange, and perhaps even altruism. An exchange-based explanation of such human qualities might encourage economists to pay them greater heed.

Ofek is to be applauded for developing a novel interpretation of our distant past that has the potential to solve numerous evolutionary puzzles. He draws on a wide literature. I would have appreciated a more explicit comparison with alternative views of our evolutionary past. The text is very well written, though stronger links could have been drawn among the various arguments. As the economics profession takes tentative steps toward a more nuanced understanding of human nature, Ofek's analysis provides an economic rationale for complexity at the level of both individuals and societies.

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*Economics and Culture*. By David Throsby. Cambridge, New York and Melbourne: Cambridge University Press, 2001. Pp. xv, 208. \$54.95. ISBN 0-521-58406-X.

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Over the last 25 years, David Throsby has been a leader in the field of cultural economics, setting a fine example of how to apply mainstream economics to the analysis of the arts and culture. By "mainstream," I do not mean a narrow view of neoclassical economics but a wider palette that includes welfare economics. With these theoretical tools and a substantial amount of quantitative empirical work, Throsby has made seminal contributions to cultural economics. His considerable list of publications includes a valuable survey of the economics of the arts in this journal (Throsby 1994, "The Production and Consumption of the Arts: A View of Cultural Economics," *J. Econ. Lit.* 32:1-29). He also has advised on cultural policy-making in Australia, a country that has a significant public budget for the arts and culture, and more recently he has been involved with international fora—UNESCO and the World Bank—on a range of cultural and development issues.

In this book, Throsby uses cultural economics as a primer and paints on a broader canvass. Cultural economics used to be called the economics of the arts; the present name came to be adopted because it more readily encompasses the growing interest in heritage and the cultural industries—broadcasting, publishing, film, music, and so on. (The *JEL* listing, *Z1 Cultural Economics*, is of course a much wider category than *Economics of the Arts*). Throsby now finds that the view of culture espoused by cultural economists is too narrow and in *Economics and Culture* offers what he calls "one economist's approach to cultural issues" dealing with "the relationship between economic and cultural activity, that is between economy and culture as recognisable manifestations of human thought and action . . ." (p. xiii). In doing so, he reaches out to an audience of economists as well as to non-economists, particularly those involved with cultural policy issues.

Despite, or possibly because of, his long experience with mainstream economics, Throsby now rejects its "imperialism" because it is neither value-free nor culture-free. He distinguishes between two definitions of culture, one being the now standard "high art" and "low culture" studied by cultural economists, and the other being the broader one of culture in the anthropological sense (societal beliefs, customs, values and the like) that receives attention in some economic growth and development literatures. In the book,