

Culture



Robert AXELROD, *The Evolution of Cooperation*, New York: Basic Books, 1984. 241 pages, US \$17.95 (cloth)

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[See table of contents](#)

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Anna S. MEIGS, *Food, Sex, and Pollution: A New Guinea Religion*, New Brunswick (N.J.), Rutgers University Press, 1984. 196 pages. US \$22.50 (cloth).

By Dan Jorgensen
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Contemporary Melanesian ethnography has been paying increasing attention to the problematic nature of relations between the sexes and their ideological representation, and gender studies have become something of a growth industry. *Food, Sex, and Pollution* is a contribution to the genre that stands out in its treatment of how gender is embodied in a complex series of rules governing food and sexuality among the Hua of Papua New Guinea.

Meigs' thesis is that Hua ideas about men and women are intelligible with reference to the core category of *nu*, 'vital essence', most commonly manifest as bodily fluids. *Nu* is implicated in a wide range of human productivity: a woman's children are suffused with her *nu*, as is her daily garden harvest; a man's children likewise share his *nu*, as do his pigs and the animals he shoots. Hua practices concerning *nu* thus articulate notions of place (since *nu* is connected with the land on which crops are grown), descent (children inherit *nu* from their parents), work (*nu* is transferred to the objects of production), and gender (men and women have different sorts of *nu*). One of the problematic aspects of Hua culture is that life demands a series of transactions between men and women involving *nu* whose effects are held to be potent (resulting in growth) and potentially dangerous (resulting in debility through pollution). This is a sort of "hydraulic" model of human sociality, and one has the sense that the Hua grammar of separations and connections can be conceived as a series of flows, dams, and leaks between reservoirs of substance.

The strength of Meigs' approach is that it manages to tie together several prominent Melanesian themes—exchange, sexual polarity, manipulation of power and fertility—with reference to a core of Hua ideas. Meigs' effort therefore deserves notice for the extent to which it illuminates these themes by deploying Hua categories as basic tools of analysis. Paradoxically, it may also be that this conscientious fidelity to the Hua theme of 'essences' poses the largest analytic problems. Precisely because *nu* frames the analysis its status is taken for granted: *nu* explains a great deal, but we are given little to account for its central place in the Hua scheme of things. This is fine so long as one remains

within the Hua terms of the discussion, but the analysis would be strengthened by a firmer focus on the more formal properties of a system conceived in such terms. Here a key point would seem to be that *nu* not only serves as a synthetic symbol of the sorts of connections people have with one another—it also suggests that such connections can transform the substance of one's being. Here we catch a glimpse of a truly *relational* folk sociology inscribed on the body. From such a perspective one may reopen larger theoretical issues in Melanesian ethnography by understanding that Hua society imagines itself as a fragile construction superimposed on facts of life whose very nature is fluid, for if *nu* is *substance*, it must be admitted that in itself it is formless. As such, the Hua religion of the body is a religion in which the self is invented in its dealings with others and in which society is created and recreated through conscious human agency.

Robert AXELROD, *The Evolution of Cooperation*, New York: Basic Books, 1984. 241 pages, US \$17.95 (cloth).

By Michael D. Levin
University of Toronto

This work is worth looking at for two reasons. One is to be surprised that a book about a contest between computer programs can be lively and interesting. The second is that the experiment with the programs and the discussion of the implications for cooperation is illuminating. Robert Axelrod has written the kind of behavioural social science that anthropologists can benefit from reading and that is relevant to questions of social organization. The set of simulations of cooperation that he has created can help us understand the processes of long-term institutionalized cooperation that underlie the ideology of cooperation.

The contest Axelrod organized was designed to discover the strategy of response that would maximize cooperation from others. Each entrant in the contest wrote a computer program that would deal with the problem of cooperation as posed by the iterated Prisoner's Dilemma. (In brief, in the long term is the best strategy to testify against one's fellow prisoner, or to continue to cooperate by remaining silent?) The programs were pitted against one another and the winner was the one which gained the most cooperation. A simple program Tit For Tat, written by Anatol Rapoport of the University of Toronto won the contest. The

strategy in this program was straightforward: cooperate when offered cooperation, react negatively when rejected, but don't bear grudges, i.e., don't respond negatively twice in a row, be predictable. In one-on-one situations strategies that tried to take advantage of weakness, even in very subtle ways, always fell behind Tit For Tat.

The illustrative cases and the experiments range over a number of important questions including implications of cooperation for biological evolution, the importance of reputation in cooperation, the basis of cooperation between the government and the governed, territoriality and collective stability of cooperation, the effect of the perception of the future on cooperation, and international arms negotiations.

In this speculation on the origin of cooperation Axelrod reveals his engaging style: "Even if most of a newcomer's interactions are with uncooperative natives, a small cluster of newcomers who use reciprocity can invade a population of meanies." The rules on how to get most cooperation (but not dominate) in one-to-one situations are engagingly simple: "1. Don't be envious. 2. Don't be the first to defect (not cooperate). 3. Reciprocate both cooperation and defection. 4. Don't be too clever." It is this sort of alternation between greezy, but pointedly serious, passages and analytical statements about tests, victory and strategic advantage that makes this book readable; it is the analysis linking illustrations drawn from life to a rigorous systematic analysis that makes it a remarkable contribution.

For anthropologists the major benefit of such a work is the utility in research on cooperation that such models have. The sequences of interaction that the models describe, although limited in their lack of content, provide, nevertheless, a set of patterns against which one can compare observations. Some will like the sociobiological speculations in Chapter 5; others will find them, as I did, unconvincing. The work despite these reservations is well worthwhile.

Marc ABELÈS et Chantal COLLARD (études réunies et présentées par), *Âge, pouvoir et société en Afrique noire*, Paris, Karthala, et Montréal, Presses de l'Université de Montréal, 1985. 332 pages.

Par *Gérald Berthoud*
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Comme le relèvent très judicieusement les deux éditeurs de l'ouvrage, faire référence à l'âge au sujet des multiples ethnies africaines revient presque immédiatement à établir une dichotomie entre le système des classes d'âge et l'Afrique de l'Est d'une part, le rapport aîné/cadet et l'Afrique de l'Ouest d'autre part.

Or le présent livre se donne comme objectif de remettre « en question la pertinence de ce partage » et donc de montrer que « l'articulation de ces données de génération et d'âge est fondamentale en Afrique de l'Ouest comme en Afrique de l'Est » (p. 12). Cette remise en question est sans doute moins radicale qu'il n'y apparaît au premier abord. Ainsi, bien que l'œuvre de D. Paulme, *Classes et associations d'âge en Afrique de l'Ouest* (1971) soit mentionnée dans leur introduction, les deux éditeurs n'y font plus aucune allusion quand il s'agit de dépasser le réductionnisme de la double association classe d'âge, Afrique de l'Est et aîné/cadet, Afrique de l'Ouest.

À vrai dire, une telle dichotomie est très séduisante, puisqu'elle se retrouve au niveau des orientations théoriques: une perspective dite fonctionnaliste pour la première association, une approche dite marxiste pour la seconde.

À partir de là, l'intention des éditeurs est donc clairement de faire éclater ces voies divergentes pour une approche beaucoup plus englobante de l'âge, évalué chaque fois dans la complexité et le contexte d'un groupe social particulier. À cet égard, la rapide critique des contributions des anthropologues marxistes, sur le mode de production lignager, est particulièrement bienvenue. L'aîné — cette catégorie sociale cruciale de l'éclairage marxiste des ethnies communautaires — n'est-il pas à la fois l'ancien, le chef de lignage, le père ou encore le frère aîné (voir p. 10)? À ce laxisme terminologique répond alors, chez certains tout au moins, un dogmatisme ou une vue doctrinaire de la différence lignagère. Cette distinction peu claire entre aîné/cadet n'a-t-elle pas été assimilée à une opposition entre deux classes sociales? Cette même anthropologie marxiste n'est-elle pas tombée dans le piège de l'idéologie économique — qu'elle