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This short paper is a commentary on Henrich et al. (2005) Economic behavior in cross-cultural perspective, BBS, 28.
The target article, commentaries, and authors' response can be downloaded from:
http://www.psych.ubc.ca/~henrich/Website/Papers/BBSTarget2005.pdf

Table 1) some of the international results on UG behavior sum-

sponders and social expenditure as a percentage of GDP ($r = .51$) or as a percentage of public expenditure ($r = .50$). There was also a suggestive ($p < .10$) correlation between the mean amounts offered by the proposer and social expenditure as a percentage of public expenditure ($r = -.47$).

The correlations found for the responders suggest that people might be more likely to reject apparently inequitable offers in the UG, either because they are used to better treatment in their society or because they have a public welfare system to fall back on. On the other hand, had we found a negative correlation here we might have been tempted to argue (although perhaps less plausibly) that people living in countries with more social spending are perhaps more used to receiving assistance which, although generous by international standards, still results in a standard of living less than that enjoyed by some others in their society.

The negative correlation found for the proposers can be explained by remarking that those who live in countries with relatively generous social expenditure are perhaps less likely to be individually generous because they know that public expenditure will take care of people (especially the poor) in their society. For example, there may be more beggars *and* more money given by individuals to beggars in countries with lower social expenditures (Jordan 1999). On the other hand, a positive correlation would (probably more plausibly) be interpreted as the consequence of people in countries with high social expenditure generally being more generous (*videlicet* the higher social expenditure), or perhaps being accustomed to the democratic rejection of proposals regarding lower social spending.

Double-edged interpretations of correlations could also be made for other social indices (e.g., the Gini indices examined by Oosterbeek et al.). The basic point is that the intuitive and experimental simplicity of the UG, which is probably responsible in part for its popularity among experimental economists, may make it difficult to relate to real-world phenomena. Nonetheless, it is important to make this relation, if we are to understand cross-cultural variation in prosocial behavior.

Although these correlations and comparisons are interesting, they should be interpreted with caution. The samples are small, and the UG studied by Oosterbeek et al. varied considerably in procedure; we have ignored rather than controlled for these differences. Nor do the relationships we mention here have close equivalents in the small-scale societies investigated by Henrich et al. Nevertheless, the results do make it clear that we have some distance to go in establishing a real-world validity for the UG.

The ecological rationality of strategic cognition

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Abstract: I argue that altruistic behavior and its variation across cultures may be caused by mental cognitive mechanisms that induce cooperative behavior in contract-like situations and adapt that behavior to the kinds of contracts that exist in one's socio-cultural environment. I thus present a cognitive alternative to Henrich et al.'s motivation-based account. Rather than behaving in ways that reveal preferences, subjects interpret the experiment in ways that cue their social heuristics. In order to distinguish the respective roles of preferences and cognitive processes that determine economic behavior, we need more ethnography of strategies "in the wild."

Henrich et al.'s article and book are much needed works, helping to bridge the gap between economics, psychology, and anthropology. Nonetheless, here I defend a different theory of the psychological foundations of human sociality. I will present this alternative theory and show that its methodological implications for the study of human cooperation open the door to a greater role for anthropology.

The initial problem posed by Henrich et al. is that the "canonical model" of the self-interested rational agent is unable to account for the altruistic behavior observed in day-to-day life and in the economists' laboratories. Therefore, we must modify the canonical model in order to explain the altruistic behavior of agents. The traditional approach of Rational Choice Theory (RCT) accounts for human behavior with two components: (1) *preferences* (desires, utility, or goals), which function as the motivating force behind human action and which are specific to each agent (their origins fall outside the scope of RCT); and (2) *rational calculation and evaluation* of the outcomes of possible behaviors, which lead the agent to enact the behavior that is expected to result in the achievement of what the agent prefers (to maximize his utility, to best satisfy his desires, etc.). Henrich et al. fully keep this traditional RCT approach, but question an auxiliary assumption – the Selfishness Axiom – which stipulates on what the agents' preferences are. According to the axiom, agents strive to maximize their own material gains and only those gains. Henrich et al.'s amendment to the canonical model is minimal: they simply incorporate altruistic preferences into agents' preferences; people, they say, enjoy improving the well being of others for the sake of it, and they enjoy being fair. But throughout their entire argument, Henrich et al. still heavily rely on traditional RCT. In particular, they rely on RCT's assumption of rationality, as is shown in their analysis of the ultimatum game results. In their analysis, they do not question RCT's normative, highly complex method of calculating the maximizing choice; rather, they consider alternative ways of modifying the utility function by factoring in high risk aversion, social conflict aversion, and ambiguity aversion, before ultimately concluding, with the help of the results of the dictator game, that people's preferences must include non-selfish preferences.

There is, however, at least one other way of modifying the canonical model that would account for the altruistic behavior of agents. Henrich et al. choose to revise the assumptions lying in the "self interested agent" without questioning RCT's notion of rationality. I hold, on the contrary, that we should revise the assumptions underlying the notion of the "rational agent." It is certainly not new to say that RCT's normative view of rationality does not accurately describe what goes on in people's minds (cf. Tversky and Kahneman's "heuristic and bias" program; e.g., Kahneman et al. [1982], which forms the core of behavioral economics). Along these lines, I propose that the systematic deviation of experimental results from the predictions of the canonical model is explained by a *reputation investment bias*. This bias is caused by the fact that people do not use the most up-to-date mathematical theories to calculate cost, risks, and benefits of possible choices, as in the rational agent

model, but rather rely on a heuristic for contract-like situations that makes them systematically invest their resources in the improvement of their reputation, in generating friendship, and in creating social relations of positive reciprocity. The heuristic is biased because, in the experimental situations of the anonymous one-shot game, it does not lead to the maximization of utility. On the other hand, the heuristic is adapted to the social environment of people, where economic interaction is rarely one-shot or anonymous. In the multiple interrelated repeated games that better describe economic interactions outside the labs, it pays to have some friends. Where the detection of cheaters is nearly flawless, where people quickly communicate information on the reliability of people in economic exchange, it pays to have a good reputation. In other words, a reputation investment heuristic is ecologically rational and generally maximizes utility in real-world environments. The heuristic simply steers people toward using what Axelrod (1984) called "nice strategies," that is, strategies that start with cooperation. It is therefore a cognitive mechanism that is, in evolutionary terms, at least as plausible as altruistic preferences.

Let me extend the argument to the explanation of cultural variation. What varies across cultures, altruistic preferences or the cognitive processes that sustain choices? If people are *ecologically* rational, as Gigerenzer et al. (1999) argue, they then use simple heuristics that are adapted to their socio-cultural environment. The sort of contracts existing in a community, the way in which people normally share and with whom, the kinds of incentives that promote cooperation, the ease with which one can avoid punishment after defection, all provide information for the design of the most adapted heuristics. Rather than internalizing cultural norms, people learn the heuristics with which to interact fruitfully with others. In this view, the social environment is as much constitutive of the norms as the mental events that cause normative behaviors. The hypothesis of a reputation investment bias implies that there is a learning process that leads to the production of different reputation investment heuristics that are adapted to the types of economic interactions existing in one's environment. There is a mental cognitive device for reputation investment that produces these heuristics and that activates them according to the cues provided by the contractual situations. When people make choices in experimental games, they probably do not transform themselves into the demonically rational agents of RCT. Most likely, people continue to use the heuristics they have developed in their day-to-day interactions. They pick up on certain cues in the experimental situation that trigger a heuristic that is adapted to a given sort of contract that they encounter in their normal environment. So, rather than altruistic preferences varying across cultures, it may well be the cognitive heuristics that vary.

The main consequence of the explanation I advance is that cultural variation in the experimental game setting comes from the contextual interpretation of games and not wholly from differences in people's preferences. Although Henrich et al. recognize the plausibility of this explanation, they attempt to downplay its significance by limiting it to cases where interpretation is made explicit, as in the identification of the Public Goods Game with the *harambee* in the Orma case. However, understanding the experimental game *is interpreting* what the experimenter says, shows, and expects. In order to understand, people put their cognitive resources and abilities to work. They consequently invoke their knowledge, beliefs, and past experiences. They use ready-made and quickly available heuristics to solve the task set by the experimenter. But if interpretation is always at work, then the preferences, the motivations of people's behavior, are not *revealed* by their behavior in the experimental situation. This is because the experimenter cannot assume that his subjects have made the choices that actually maximize their utilities in the closed context of his experimental game, even when he made sure his subjects understood the game. The solution to the problem, I believe, lies in buttressing the causal hypothesis generated by multivariate analysis with qualitative studies. This is all the more necessary because people's behaviors are adapted to their specific environment. Their cognitive processes, notes Hutchins (1995), can only be functionally understood by taking into account the situations in which they normally apply. I argued that altruistic behavior is likewise socially situated and must be accounted for with environmental phenomena, such as the structure of payoffs, the mechanisms for the attribution of reputation, contract enforcement mechanisms, or attribution of reputation mechanisms. This means doing the ethnography of strategic interactions; this means addressing the standard (non-experimental) economic anthropology literature. But the latter may in turn be reinvigorated by the application of game-theoretic concepts (some anthropologists are already doing this, e.g., Acheson 2003; Ensminger 1992). The gap between economics and anthropology cannot be bridged by cross-cultural experimental economics alone; if the hypothesis I advance has any plausibility, then one also needs, at a minimum, the cognitive ethnography of strategies in the wild.

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Market integration, cognitive awareness, and the expansion of moral empathy

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Abstract: The target article authors' study has highlighted the relationship between market integration and an increased willingness to enter into cooperative exchanges. Less developed, albeit implied, in their analysis are the theoretical implications of their findings for the theory of altruism first developed by Adam Smith and later expanded in the works of the American historian, Thomas Haskell.

Joseph Henrich and his co-authors have put together an impressive research design and analysis that finds a strong relationship between a community's level of social organization, especially as it pertains to economic involvement (or market integration), and an increase in individuals' willingness to enter into cooperative exchanges. This increased involvement in market transactions impacts individuals' awareness and understanding of their place within society and in the world. Implict in Henrich et al.'s analysis, yet undeveloped, is the potential for understanding the origins of moral empathy and the evolution of altruism. This heightened awareness also contributes to a greater readiness to enter into cooperative interactions, and may also result in an expansion of moral empathy toward a stranger's plight.

As the authors point out, humans are capable of fairness, sympathy, and equity in their dealings with others. In many ways, the authors' findings are remarkably consistent with the 18th century Scottish philosopher Adam Smith's writings on the relationship between market integration and heightened empathy for nonkin or strangers.

Smith first suggested there existed a strong link between the development of a nationalistic-oriented government, the rise of a capitalistic economy, and the expansion of an empathic gaze toward another's plight (Smith 1759/1966; cf. Greenfeld 2001). For Smith, self-interest explanations favored by Hobbes and others failed to account for the origins of altruistic behavior. The American historian, Thomas Haskell, drew upon Smith's discussion of the origins of moral sentiments to advance the thesis that there is a causal relationship between the appearance of a global trading system, the expansion of an individual's sense of moral inclusiveness, and, thereby, an individual's obligation to others. In a series of impressive publications, Haskell (1985; 1998; Haskell & Teichgraeber 1993) sought to explain this relationship. Smith and Haskell assume that humans are "cognitively and emotionally pre-