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Is Greed Good?

Economists are finding that social concerns often trump selfishness in financial decision making, a view that helps to explain why tens of millions of people send money to strangers they find on the Internet

By Christoph Uhlhaas

Could you buy a used car online, sight unseen and without a test-drive? How about a plane? A vehicle changes hands on eBay Motors every 60 seconds, including one private business jet that sold for \$4.9 million. Every second buyers collectively swap more than \$1,839 for products through eBay, sending money to complete strangers with no guarantee that the goods they buy will in fact arrive, let alone in the condition they expect.

As a rule, they are not disappointed. To some economists, this is a borderline miracle, because it contradicts the concept of Homo economicus (economic man) as a rational, selfish person who single-mindedly strives for maximum profit. According to this notion, sellers should pocket buyers' payments and send nothing in return. For their part, buyers should not trust sellers—and the market should collapse.

Economist Axel Ockenfels of the University of Cologne in Germany and his colleagues have spent the past several years figuring out why this does not happen. It turns out that humans do not always behave as if their sole concern is their personal financial advantage—and even when they do, they consider social motives in the profit-making equation. As Ockenfels has discovered, a sense of fairness often plays a big role in people's decisions about what to do with their money and possessions, and it is also an essential part of what drives trust in markets full of strangers such as eBay.

Ockenfels's Equity, Reciprocity and Competition (ERC) theory, which he developed with economist Gary Bolton of Pennsylvania State University, states that people not only try to maximize their gains but also watch to see that they get roughly the same share as others: they are happy to get one piece of cake as long as the next person does not get two pieces. This fairness gauge apparently even has a defined place in the brain. On eBay, however, fairness takes the system only halfway, researchers have now learned; eBay's reputation system is critical for augmenting the level of trust enough for the market to work.

Circumstance also sculpts behavior, studies have revealed, regardless of natural character traits or values. That is, whether a person is competing in a market of strangers or negotiating with a partner can make a big difference in whether fairness, reciprocity or selfishness will predominate. In fact, the ERC theory hints at ways to alter economic institutions to nudge people to compete—or cooperate—more or less than they currently do.

Playing Fair

Economists have long been studying volunteers in the laboratory to determine how and why they make financial decisions. In competitive markets, from the U.S. Stock Exchange to auctions at Sotheby's, people generally act like Homo economicus, behaving in ways that maximize their own profits.

But inherent selfishness cannot explain behavior in other settings. Take a child who has been given a bag of jelly beans, which her left-out sibling is eyeing jealously. Many children would voluntarily share the candy just to be fair, even though that would mean fewer jelly beans for them. Mathematicians who practice game theory see something similar when they ask people to bargain in a test of social motives called the Ultimatum Game. In this two-player game, player A is endowed with a certain sum, say, \$20, if he agrees to share some of it with player B. If B accepts A's offer, the money is divided accordingly. But if B rejects the offer, both players end up with nothing.

In Ultimatum Game studies, researchers have found that the average offer is about 40 percent of the sum and that the most frequent split is 50–50, analogous to a child giving her sibling half or nearly half of the jelly beans she received. The recipient, B, usually accepts such roughly equal offers. When A offers less than one third of the total, however, B usually reacts with scorn and scraps the deal. This response seems nonsensical to someone who is only out to maximize profit. But it is more logical if people have a competing social concern: fairness. If individuals want a fair split, then accepting significantly less than that would mean forfeiting that objective.



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A motivation for fairness also seems to be an important factor on eBay, in which the “Buy It Now” format—or an auction with just one buyer—resembles an Ultimatum Game; a seller offers an item at a price that a buyer can accept or reject. To test this hypothesis, Ockenfels and Bolton recruited 100 German university students with selling experience on eBay, divided them into 50 buyer-seller pairs, and asked the sellers to hawk \$20 certificates (funded by the researchers) to their assigned partners on eBay.

Consistent with previous Ultimatum results, the most popular selling price was \$10, which would result in an equal split of the experimental pot. All but one buyer accepted this offer. Prices above \$17 were uniformly rebuffed as too greedy, and some also refused costs between \$10 and \$17, refuting the idea that monetary incentive alone governs the deal. On the contrary, in this bargaining situation an equal split maximizes profits, Ockenfels says, because buyers generally will not accept unfair offers and sellers seem to realize that. “Fair dealing pays off,” he concludes.

Different Strokes

In many cases, however, people will forgive a biased outcome if it comes about by chance rather than through a deliberate act. Ockenfels and Bolton recently asked volunteers to play an Ultimatum Game variant in which player A chooses to split the money either 50–50 or 80–20. If the choice was 80–20, 41 percent of recipients refused the offer. But only 7 percent rejected the 80–20 split when it came from a robot acting at random. This result, Ockenfels says, suggests many people will accept unequal deals as long as all participants have been given a fair chance.

Not everyone is the same, of course. The demand for such procedural fairness, in which people get equal treatment even if the outcome is unfair, may have a cultural component. Anecdotal evidence suggests, for instance, that Americans may be more concerned with procedural fairness than Germans are. Germans seem more likely to insist on equivalent outcomes, Ockenfels says. Individual differences matter, too. Some people are very sensitive to being cheated, whereas others are far less bothered, even nonchalant, when they receive unequal treatment.

That said, discerning values from behavior is often hopelessly confounded by circumstance, Ockenfels says. When he and Bolton asked people to compete for their \$20 certificates in experimental eBay auctions with one seller and nine buyers each, they found that the selling price zoomed above \$19, a far cry from the equal split that pervaded the previous one-on-one game. Homo economicus trumped fairness in the auction, because a fair player has no way to strive for equity in a situation in which each person must overbid the others to get anything at all. “In markets, all people behave selfishly, but that doesn’t mean they really are,” Ockenfels comments. “The institutions make you behave in certain ways.”

Building Trust

In the researchers’ experimental auction, trust was not a factor, because the (presumably trustworthy) experimenters vouched for the \$20 certificates. Yet trust is a critical issue on eBay, in which sellers are anonymous and have little pecuniary incentive to actually ship the items they have sold.

To figure out why they ship anyway, Ockenfels, Bolton and Penn State business professor Elena Katok asked 144 university students to play a trust game that mimics the situation on eBay. In the game, a seller and a buyer each start off with the same sum, say, \$35; that is the payoff when no trade takes place. The seller also has an item to be sold for \$35, but its value to the buyer is \$50, so a trade nets the buyer an extra \$15. The seller pays the shipping costs here, \$20, so a trade also nets the seller an additional \$15. But if the seller fails to ship an item, the seller receives a \$35 bonus and the buyer loses the entire endowment. If the buyer chooses not to take this risk, no trade occurs.

In this game, the outcome is fair after either a successful trade or no trade—but most advantageous to the seller if the seller fails to ship. Homo economicus would thus never ship, and no rational buyer would buy. But 37 percent of the sellers were willing to ship, the researchers found, suggesting that some sellers were motivated by an intrinsic sense of fairness and some buyers had bet on that. And in a modified trust game that endows the buyer with an extra \$70 regardless of the outcome, the researchers predicted that fair-minded sellers would not ship, because that choice would equate buyer and seller sums at \$70. As expected, many fewer sellers (only 7 percent) decided to send the fictitious goods, signifying that the main reason for trustworthiness is fairness.

Rumor Has It

Nevertheless, sellers must ship as much as 70 percent of the time for buying in such a game—or on eBay—to be profitable, according to Ockenfels. How does eBay boost trust to that level? The answer: feedback. On eBay, sellers and buyers can evaluate one another after a transaction has been completed, and these evaluations are made public for future buyers and sellers. “This reputation system functions like an organized rumor mill and replaces the gossip systems of the off-line world,” Ockenfels explains. Because a bad reputation scares off future buyers, even strategic and rational sellers have an incentive to be trustworthy.

To quantify the power of this rumor mill, Ockenfels and his colleagues compared market activity among strangers matched for 30 rounds of transactions without a feedback mechanism against a similar market that included feedback. They found that the feedback system elicited significantly more buying—56 percent—as compared with buying without it—37 percent. More shipping also occurred, rising to 73 percent—above the threshold for trust to be profitable—as compared with shipping for transactions without the reputation system: these hovered around 39 percent. The results indicate that feedback can fill the trust gap in a market such as eBay’s, multiplying the impact of intrinsic trustworthiness.

But the feedback system is imperfect. About 98 percent of ratings on eBay are positive, according to Ockenfels, suggesting that some disappointed eBay buyers do not post negative ratings. Buyers may fear “revenge feedback,” when a seller retaliates for a bad rating with a negative rating of the buyer, claiming that the buyer paid late or with a bad check, for instance. Indeed, in Ockenfels’s experiments, many of those who are not happy with a trade do not give feedback at all.

This lack of feedback is obviously not good for the reputation system. So Ockenfels and Bolton, along with economist Ben Greiner, now at Harvard University, have been working with eBay to design choices that induce people to post truthful and detailed negative feedback. eBay’s revised format, Feedback 2.0, debuted April 30. It lets buyers rate transaction specifics such as accuracy of an item’s description, seller communication and shipping speed, in addition to the overall rating of positive, neutral or negative.

The extra detail increases the feedback’s value to future buyers. And to help allay worries of retaliatory feedback, buyers give their ratings anonymously. Furthermore, sellers can see the detailed ratings only after providing feedback of their own, preventing retaliatory feedback even if the seller later intuits which buyer posted a poor evaluation. What the new system cannot prevent, however, is one-time cheaters. Buying a car or plane online is still pretty risky.

Ockenfels is not about to do that. He visits eBay only occasionally, to buy things for his two children. And if you notice an auction with “aockenfels” as the seller, you have probably stumbled on an economics experiment