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Amazon Indians match Harvard students in finding cheaters

By [Jeff Nesmith](#) / Cox News Service
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WASHINGTON -- You scratch my back, and I'll scratch yours.

It doesn't matter if you are a college student, a stockholder in a failed conglomerate or a nonliterate rainforest tribesman who lives at the edge of the Stone Age, that tit-for-tat agreement always means the same thing.

And when they were given a simple test designed to measure a person's ability to spot a cheater -- the guy who doesn't scratch when it's his turn -- the Indians matched the scores of Harvard undergraduates.

Scientists said Monday they believe the experiment helps establish the fact that people have an inborn ability to detect cheaters that does not depend on book learning or social differences.

The reason for this ability, said University of Oregon anthropologist Lawrence Sugiyama, who gave the Indians the test, is the crucial importance in all human societies of honoring one's obligations and perceiving when someone else has failed to honor his.

Sugiyama and other scientists believe the cheater problem was so important that humans long ago evolved special brain circuits devoted to it.

"Is there a fundamental, underlying, reliably developed gizmo in the brain?" Sugiyama asked. "A little reasoning thing that's dedicated to social exchange and specifically dedicated to detecting cheaters? We think there is."

In fact, the importance of identifying cheaters is so great that it may have evolved as a specific region of the brain before the primitive hominid ancestors of modern humans appeared on the Earth, he said.

Sugiyama is lead author of one of a pair of articles on cheating to be published Tuesday in the Proceedings of the National Academy of Sciences. The second article describes a brain-damaged man who is unable to detect cheating, even though he is capable of logical reasoning in other areas.

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To test whether recognizing cheating in social relationships is more easily understood than similar problems that do not involve social contracts, Sugiyama and other psychologists have long used a series of tests.

First, students are shown a series of cards, each with one picture on the top half and one on the bottom. They are promised: If the top picture is a bird, the bottom picture is an orange.

A student is shown a card with only the top picture revealed. It shows a bird. The student is asked what he has to know to determine if he is being cheated. The answer is obvious: He has to look at the bottom picture to see if there is an orange there.

Then the student is shown another card with only the bottom picture uncovered. It has an orange. What does he need to know to determine if he has been cheated? Most people respond that they must see the top picture to determine if there is a bird there.

However, that is wrong. If the orange is present, the student can say with certainty that he has not been cheated. Either there is a bird and the commitment was fulfilled, or there is something other than a bird and there was never a commitment to begin with.

On the other hand, if the bottom picture is shown first and it is a banana, most people fail to realize immediately that they must look at the top picture to see if they were cheated. If there is a bird in the top picture, then the presence of the banana, rather than the promised orange, means the card "cheated."

The next series of tests is identical, but instead of pictures of birds and fruit, the "if-then" game on the cards is designed in terms of social contracts.

If I lend you my car, then you will bring back pizza.

In this case, it is easy for the student to almost automatically realize that if the pizza is brought back the contract either is fulfilled or did not exist in the first place. Nobody cheated.

If the person returns without pizza, it is obvious that the student must find out whether the car was lent on condition of receiving the pizza to know if there was cheating.

Sugiyama said he gave the same test to Shiwiar people in the Amazon region of Ecuador. Until as recently as 25 years ago the Shiwiar were "headhunters," and today they live in isolated villages of between three and a dozen open-walled thatched huts, their existence dominated by hunting with primitive weapons like blow guns and gathering fruit or keeping small gardens. They have almost no contact with the outside world.

When the cards were designed on the basis of agreements and obligations, the Shiwiar chose the correct card for detecting cheaters 86 percent of the time, he reported, a score identical to that of Harvard undergraduates.

"In other words, like Harvard undergraduates, Shiwiar almost always chose the cards necessary for detecting cheaters," he said.

Likewise, when the Shiwiar were told, "If there is a red bird in the drawing on top, there is an orange in the drawing below," they made the same sort of logical errors that the university students made.

Cornell University economist Robert H. Frank, author of the 1989 book, "Passions Within Reason," which explored the way altruism can co-exist with selfishness, said the work illustrated the fundamental threat cheaters pose to society and the importance of dealing with them.

"There's every reason to expect that (understanding when one has been cheated) is not something that you get from book learning," he said, "but it's part of the basic equipment that we need to function as a person in this world."

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Jeff Nesmith is a Washington correspondent for Cox Newspapers.

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