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With Video Games, Researchers Link Guns to Stereotypes

Science Times NY Times

By ERICA GOODE *10 Dec 02* *PI*

Asked to make split-second decisions about whether black or white male figures in a video game were holding guns, people were more likely to conclude mistakenly that the black men were armed and to shoot them, a series of new studies reports.

The subjects in the studies, who were instructed to shoot only when the human targets in the game were armed, made more errors when confronted by images of black men carrying objects like cellphones or cameras than when faced with similarly unarmed white men. The participants, who in all but one study were primarily white, were also quicker to fire on black men with guns than on white men with guns.

"The threshold to decide to shoot is set lower for African-Americans than for whites," said Dr. Bernadette Park, a professor of psychology at the University of Colorado at Boulder and an author of a report on the studies to be published today in *The Journal of Personality and Social Psychology*.

The difference was not large. But the findings mesh with other research indicating that unconscious biases, possibly instilled by the news media, advertising or other cultural influences, can shape behavior, even when people do not consciously endorse such biases. Studies suggest that those hidden stereotypes or attitudes are often activated in situations where people are forced to respond quickly and automatically.

In the video game, photographs of men standing or crouching against a variety of backgrounds appeared suddenly on the screen. Some men held guns. Others held objects like cellphones, cameras, wallets and aluminum cans. The participants had to press one button quickly to "shoot" or

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In a University of Washington study, subjects playing a virtual reality game were told to shoot at armed "criminals," but not at unarmed "citizens."

In Games, Violence Is Linked to Stereotypes

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another button if they decided that the man was not dangerous.

"We wanted to ask a very basic question," Dr. Park said. "Does the normal public show a differential association of violence with blacks as opposed to whites?"

The study involved college students and adults recruited at shopping malls, bus stations and food courts in Denver.

Dr. Park said she and her colleagues had decided to undertake the study because of the 1999 shooting of Amadou Diallo, an unarmed West African immigrant who was killed in the doorway of his apartment building in the Bronx by police officers who mistook his wallet for a gun.

But Dr. Park said that it was not possible to conclude from the studies' findings that unconscious bias was at play in the Diallo shooting or other cases like it.

Research inspired by controversial events has a long history in social psychology. For example, the murder in 1964 of Kitty Genovese, stabbed to death in Queens while 38 witnesses disregarded her cries, gave rise to many studies of behavior by bystanders.

Dr. Park said police officers might be less likely than the studies' subjects to show unconscious bias, because of their training. But it may also be true, she added, that police officers are no less vulnerable than

the population at large.

Dr. Anthony G. Greenwald, a professor of psychology at the University of Washington, and two colleagues will publish findings next year in *The Journal of Experimental Social Psychology* that confirm and extend the findings of Dr. Park and her colleagues.

In that study, college students took the role of police officers in a virtual reality game in which armed or unarmed men emerged from behind a trash bin. The students were told that some of the men were "criminals" that others were fellow officers and that still others were "citizens." They were instructed to shoot the armed criminals, to press a button to "save" the officers and to do nothing when they saw citizens, who held harmless objects like flashlights or beer bottles. The study imposed a strict time limit.

As in the Colorado study, the subjects were more likely to shoot black men incorrectly than white men and less likely to distinguish guns from other objects when held by blacks rather than whites.

Numerous studies over the last 30 years have found that in ambiguous situations, blacks are more likely to be perceived as violent than whites performing the same actions. In one study, the subjects saw two men engaged in a discussion in the course of which one man lightly pushed the other's shoulder. When a black man pushed a white man, the action was described by the subjects as violent.

When the situation was reversed, the push was perceived as "playing."

Dr. Greenwald and Dr. Park said their findings did not necessarily reflect conscious prejudice.

"We live in a sea of associations," Dr. Greenwald said. "Lots of people have the automatic race stereotypes, but far fewer people are what we would call prejudiced. If we understand prejudice as intentional discrimination against some group."

In recent years, Dr. Greenwald and Dr. Mahzarin R. Banaji, a professor of psychology formerly at Yale and now at Harvard, have studied hidden biases about race, age and sex using an "implicit association test" that appears to tap such unconscious stereotypes and attitudes.

In the tests, they have found that most people are quicker to press computer keys in response to words and pictures that go together in a cultural stereotype than they are in response to words and pictures that go against a cultural stereotype.

People taking the test on race, Dr. Greenwald and Dr. Banaji said, are often upset at having displayed biases that they neither agreed with nor approved of.

Some researchers have said there might be alternative explanations for the findings. The researchers have a Web site, www.tolerance.org/hidden_bias/, that lets visitors take a series of online tests of hidden biases.

In the Colorado studies, the researchers found that subjects'

scores on a measure of racial prejudice were not linked with their performance in the shooting task. In one study, black participants were also more likely mistakenly to shoot unarmed black targets and were quicker to shoot black targets holding guns.

Dr. Park said those secondary findings were preliminary and needed to be confirmed by further research.

Unlike Dr. Park, Dr. Greenwald said he thought that results of both studies might have a bearing on police officers' actions.

"I don't think police have to be prejudiced in order for them to show these kinds of false alarms," he said.

He added that officers might "need training to prevent them from allowing these automatic processes to get in the way when they have to act in a hurry."

But in the journal article, Dr. Park and her colleagues, Joshua Correll, a graduate student, and Dr. Charles Judd, both of the University of Colorado, and Dr. Bernd Wittenbrink of the University of Chicago, noted that officers might be less likely to act on automatic associations, because they were often trained to distinguish quickly whether someone was holding a gun rather than another object.

"It is not yet clear that shooter bias actually exists among police officers," they wrote. "Examining these sorts of effects in a sample of police officers is of the utmost importance."