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Blind Justice: Biasing Moral Choices With Eye Tracking

By [Susana Martinez-Conde](#) | March 22, 2015 | 2

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Starting in the 16th century, statues and paintings depicting the [Roman goddess of justice, Iustitia](#), have often portrayed her wearing a blindfold. Lady Justice's blindness is meant to indicate objectivity and impartiality in judgement, even in the face of outer appearance.

A [study](#) published last week in the Early Edition of the Proceedings of the National Academy of Sciences indicates that the painters and

sculptors depicting the goddess as unseeing were wise to do so, even if for different reasons from those that motivated the art.

Previous studies had shown that gaze patterns reflect the course of reasoning when people make decisions. For instance, when prompted to choose between two faces or two snack foods, people spend more time looking at the item that they will select.

In the study by Pärnamets and colleagues, the scientists took the known relationship between choices and gaze patterns one step further: they set out to find out if they could force people to make particular moral decisions by manipulating the timing of their choice as a function of their gaze parameters.

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The experimental subjects sat in front of a computer monitor while the researchers tracked their eye movements. The participants had to decide between two moral alternatives presented on the screen, such as “Murder is sometimes justifiable”, versus “Murder is never justifiable”. The researchers told the subjects that they would be able to view the alternatives a short but random amount of time, and then they would be prompted to make their choice. Left unsaid was that the researchers would be timing the decision prompts according to the subjects’ gaze behavior, following fixed rules.

Specifically, the experimenters terminated the participant’s deliberation as soon as he or she had viewed each alternative for either a minimum of 250 milliseconds or 750 milliseconds. This ensured that the subject saw both alternatives, but deliberated one of them for slightly more time. The subjects chose the longer viewed alternative more often than the lesser viewed alternative. They also made their decision more quickly and indicated higher confidence in their choices with the longer-viewed alternative.



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The scientists also set out to demonstrate a causal relationship – not merely a correlation—between gaze duration and moral decision making. To do this, they designed a new experiment, which differed from the previous test in one detail: now, the researchers chose in advance the moral choices that they wished to force on the subjects. Then, the scientists terminated the subjects’ deliberation when they had seen the target alternative for at least 750 milliseconds, and the non-target alternative for at least 250 milliseconds. Because the researchers had randomly selected the targets previous to running the actual

experimental sessions, if the subjects’ choices deviated from chance it would indicate a causal influence from the timing on their decision making. Indeed, participants chose the randomly-selected target alternative more often than the non-target alternative. This showed that, by monitoring people’s gaze behavior, the researchers were able to manipulate the times at which they required responses from the subjects, thereby biasing their moral choices. Posttest interviews indicated that subject were not aware of any relationship between their gaze behavior and the time at which they were prompted to make a decision.

The PNAS article suggests that a possible application might be to track the gaze behavior of shoppers in real-time, with the aim of biasing their purchasing decisions. More generally, the authors propose that gaze dynamics are “part and parcel of the moral mind”, and that understanding the relationship between gaze behavior and decision making will help us to develop a greater comprehension of how moral choices are made in the moment.

In the meantime, it may be best that we follow Lady Justice’s example and cover our eyes when it’s time to choose.

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1. **Snowballsolarsystem**
 2:59 pm 03/22/2015

Should thought police compile secret lists and track nascent pedophiles discovered by eye tracking, perhaps even even before the individual realizing his growing affinity himself?

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2. **Susana Martinez-Conde**
 in reply to [Susana Martinez-Conde](#)
 10:25 am 03/24/2015

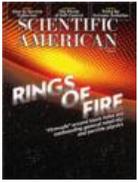
Yes! That's exactly it Snowballsolarsystem (if that's your real name). BWaaaaHaHahahaaaaa!

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