

# A toss of the dice reveals the truth

August 2 2011, by Deborah Braconnier

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In a new study published in the *Proceedings of the Royal Society B*, researchers show how a simple toss of the dice can help to bring out honest answers when people are asked difficult questions.

The research, led by Julia Jones and Freya St John from Bangor University in the United Kingdom is being used in South Africa to question ranchers regarding the killing of protected leopards.

Getting people to admit that they have done something illegal is notoriously difficult, but this new method has created a way that seems to make the respondents more comfortable in revealing the truth.

When a person is being questioned, they are first given a simple dice. They are told that before answering a question, they must throw the dice and that the researcher would not be able to see what number is rolled. If they throw a number one, they must respond to the question with 'no.' If they throw a number six, they must respond with the answer 'yes.' All other numbers they are to answer the question with a truthful answer.

With this little catch, a respondent's 'yes' answer may not always be 'yes' and a 'no' may not always be a 'no.' Because of this fact, respondents seem to be more willing to give truthful answers when the numbers two through five are rolled.

The researchers have also tested this randomized response technique with suspected drug users and compared question results with hair sample drug screening tests and found that they get much more accurate

results from the respondents that are administered questions using the dice method.

The method is being used in [South Africa](#), not to criminalize ranchers for killing the leopards, but to help target conservation efforts. In areas where ranchers are likely to kill these animals, compensation may be provided to ranchers who have lost livestock due to the predators.

**More information:** "Identifying indicators of illegal behaviour: carnivore killing in human-managed landscapes," *Proc. R. Soc. B* July 27, 2011. [doi: 10.1098/rspb.2011.1228](https://doi.org/10.1098/rspb.2011.1228)

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