# Honest Answers to Embarrassing Questions: The Randomized-Response Technique

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The randomized response technique guarantees the anonymity of respondents in surveys aimed at determining the frequency of socially undesirable, embarrassing or criminal behavior. A random number generator (e.g., a dice or a coin) decides whether the respondent is asked to answer honestly to the critical question, or whether he or she is urged to answer with „yes“, irrespective of the question content. The researcher does not know the outcome of the random experiment. Thus, he never knows whether an individual „yes“-answer was determined by the outcome of the dice throw, or whether the respondent actually exhibited the sensitive behavior. Using appropriate statistical procedures, the true proportion of respondents answering „yes“ to the critical question can be determined. Validation studies show that sensitive behaviors are admitted to more often than in conventional surveys when the randomized response technique is being used.

It is possible, however, that an unknown proportion of respondents does not answer as directed by the randomizing device. Such failure to obey to the rules of the randomized response technique (RRT) leads to an underestimation of the frequency of the sensitive behavior. Clark and Desharnais (1998) have therefore developed a method to determine the proportion of such cheating respondents. It combines conventional survey techniques with an experimental approach and is based on a between-subject manipulation of the applying random probabilites. The method allows to compute a confidence interval for the true value of the frequency of sensitive behaviors. Ideally, if the rules of the RRT are being followed (which can be tested), the method makes it possible determine the exact frequency of a socially undesirable, embarrassing, or criminal behavior of interest.

In an exemplary experimental World-Wide Web survey, the frequency of tax evasion was determined using the cheating detection technique. As compared to a conventional survey, the results show an enhanced readiness to admit to tax fraud when the randomized response technique is being used. The question for tax fraud was nevertheless sensitive enough to lead some respondents into cheating. The experimental manipulation allowed to determine the proportion of cheaters, however, and a confidence interval for the true frequency of tax fraud could be calculated.

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