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Lying in Two Dimensions

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Abstract

The expanding literature on lying has exclusively considered lying behavior within a one-dimensional context. While this has been an important first step, many real-world contexts involve the possibility of simultaneously lying in more than one dimension (e.g., reporting one's income and expenses in a tax declaration). In this paper, we experimentally investigate individual lying behavior in both one- and two-dimensional contexts to understand whether the multi-dimensionality of a decision affects lying behavior. In the one-dimensional treatment, participants are asked to roll two dice in one hand and to report the sum of both dice. In the two-dimensional treatment, participants are asked to roll two dice at the same time, but one in each hand, and to report the two dice separately. Our paper provides the first evidence regarding lying behavior in a multi-dimensional context. Using a two-dimensional die-roll task, we show that participants lie partially between dimensions, i.e., they distribute lying unevenly across dimensions, which results in greater over-reporting of the lower outcome die. These findings suggest a pertinent policy to tackle the infamous societal challenge of tax fraud: Tax report checks should focus on the item(s) for which a taxpayer profile hints at higher self-benefits in case of misreporting.