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Terrorism Watch Lists, Suspect Ranking and Decision-Making Biases

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ABSTRACT

The large number of names on terrorism watch lists raises the problem of monitoring. Given the existing resource constraints and other logistical considerations, efficient and accurate ranking of individuals in terms of threat posed is of paramount importance. This process, however, may be impacted by reference points, diminishing sensitivity, loss aversion, and other aspects of the human decision-making process that introduce biases. This article explores the relevance of decision-making processes and biases to the specific task of ranking and monitoring individuals whose names have been placed on a terrorism watch list.

Notes

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59. Nonlinear probability weighting emerges from the reference point nature of the two extreme probabilities, 0 and 1. It might also be explained by the different levels of attention that are accorded to the extremes of the probability distribution depending on the degree of cautious optimism that characterizes the decision maker. More optimistic decision makers accord more attention and proportionally more weight to better but less likely outcomes while more cautious decision makers accord more attention and proportionally more weight to worse but more likely outcomes (Lopes and Oden, “The Role of Aspiration Level in Risky Choice”).

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63. There are many different hypotheses that have been put forward to explain why decision makers weight probabilities in this manner. Tversky and Kahneman's explanation relies on the concept of diminishing sensitivity. This influences both the perception of outcomes (the decision maker is less sensitive to outcomes that are further from the reference point) and the subjective weighting of probabilities. Consider, for example, the different ways in which the same change in probability is perceived when moving from a 5 percent chance to a 10 percent chance (perceived as a doubling); from a 40 percent chance to a 45 percent chance (perceived as neither here nor there); and from a 95 percent chance to a 100 percent chance (perceived as being very significant). In a sense, probability has two reference points: 0 and 1. Changes in probabilities that are close to either of these reference points get more attention from the decision maker (see Gonzalez and Wu, “On the Shape of the Probability Weighting Function,” p. 136).

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69. That is, overconfidence introduces errors in probability assessments which are then further distorted by nonlinear probability weighting.