



Unstable values in lifesaving decisions

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INTRODUCTION

Classical economic approaches to the study of preferences and risky choices assume that human preferences are stable and rational. However, subsequent empirical research has demonstrated that preferences are often constructed and that choices are influenced by a variety of factors that frequently deviate from normative decision-making models. While many of these studies have confirmed that preferences depend on presentation formats, response modes, processing modes, mood states, attitudes, and a host of other moderators (e.g., Lichtenstein and Slovic, 2006), it should be noted that preferences are also a manifestation of a decision-maker's inherent values. While core values are often seen as relatively stable (Malle and Dickert, 2007), tradeoffs among those values are often ill-defined, setting the stage for preference reversals induced by contextual factors that should not really matter (Lichtenstein and Slovic, 2006). But how do values shape our preferences and guide our decisions? In the present article we conceptualize preferences as manifestations of feelings and values, and briefly describe how they influence behavior in certain situations involving risk.

Specifically, we aim to show how values can manifest themselves as preferences and influence choices in situations where people make decisions about others whose lives are at risk. Touching on issues relevant for risk perception and risk management as well as the underlying processes of valuations that lead to preferences, we go beyond the common conceptualization of risky choices represented as outcomes with well-defined probabilities. Instead, our research focuses on and documents people's inconsistent use of values when making decisions about whether or not to aid other people whose lives are endangered.

In our culture, most people would endorse a normative model asserting that every human life is intrinsically equal in value. This implies a linear relationship

between the number of people at risk and the amount of money one should be willing to contribute in order to reduce or eliminate that risk. However, studies of actual behavior show that, descriptively, this is hardly ever the case (e.g., Slovic, 2007). On the contrary, as the number of people at risk increases, the marginal rate of contributions decreases, revealing a general insensitivity to large losses of life (Fetherstonhaugh et al., 1997). In many cases, valuations are actually highest for a single individual life and decrease when more lives are at risk (Kogut and Ritov, 2005; Small et al., 2007). In our research, we examine the underlying mechanisms that can explain some of the deviations between normative and descriptive models of helping behavior. In the remainder of this article, we highlight the role that affect plays in the construction of preferences for valuing the life of someone at risk and focus on some of the affective mechanisms we believe to be central to lifesaving decisions.

THE ROLE OF AFFECT AND AFFECT REGULATION IN VALUATIONS OF PEOPLE AT RISK

Decisions in situations of risk are strongly influenced by affective and emotional responses of the decisionmaker (Loewenstein et al., 2001). People often evaluate the risks, risk factors, and potential benefits on an affective dimension (Slovic et al., 2002). Charitable giving (as one expression of valuing other people's lives) is likewise heavily influenced by our emotions (Andreoni, 1990; Batson, 1990; Slovic, 2007). In these situations, affective responses serve both as a way to inform the decisionmaker about the value they should place on other people at risk as well as constitute a source of motivation underlying helping. In our research we have found that the motivating emotions vary in different stages of the valuation process (Dickert et al., 2011b). We show that valuations are constructed based on affective responses

and follow a specific time-course that we model with two separate stages. According to this model, when confronted with the need to help someone at risk, people first consider how they feel about themselves to determine whether they will help or not (Stage 1). If they decide to help, people then determine the amount of help that they want to provide by consulting their feelings regarding the persons at risk (Stage 2). Thus, the decision to donate or not is primarily determined by affective responses that are focused on the self (e.g., how much better a person feels after helping someone else) and the amount donated is primarily determined by emotions that are focused on others (e.g., sympathy and compassion).

As is evident from this distinction, behavioral responses in the face of risk are not only affected by our feelings, but also exert an influence on them. Self-focused feelings may provide the basis for helping responses, but people also feel better about themselves after helping (Dickert et al., 2011c; Dunn et al., 2008). As such, emotion regulation and mood-management strategies become a critical component in valuations of people at risk. Similarly, emotion regulation also comes into play for other-focused emotions, as documented by the breakdown of compassion when we are confronted with large populations at risk (Slovic, 2010a). In order to better understand the role of affect (and affect regulation) in valuations and determine when feelings lead to an inconsistent use of values underlying choices, it is necessary to take a closer look at the processes that lead to the generation of feelings.

FACTORS INFLUENCING THE GENERATION OF AFFECTIVE RESPONSES IN SITUATIONS OF RISK

It is important to note that valuations of people at risk (and the underlying affective processes) are similar to other preferences in the sense that they are context-dependent. The way the risk is portrayed (e.g., by different framing or presentation formats) greatly

influences affective responses underlying these valuations. In our research we have given special considerations to processes related to (1) mental imagery, (2) individual differences, and (3) attention.

MENTAL IMAGERY

Mental images are intimately related to emotional reactions. This is especially true for mental images that underlie risk perceptions (Slovic, 2010a). The more vividly people in need are described the more likely we are to respond affectively and generate feelings underlying the valuation of their lives. Presentation formats that enhance mental imagery (e.g., showing the faces of people at risk and using information-processing modes that facilitate clearer and more concrete mental representations) increase affective responses (Dickert et al., 2011a). Conversely, depicting people abstractly (e.g., as statistical lives rather than identified human beings) decreases affective responses and subsequent valuations (Small et al., 2007). In situations where a large group of people is at risk, it is likely that mental images are less concrete and emotional responses less pronounced. Research has demonstrated that mental images (and the resulting cognitive and emotional processes) are different for individuals than for groups (Hamilton and Sherman, 1996). It is easier to imagine a single person at risk than a group of persons. This causes affective responses to be strongest for a single individual and considerably weaker as the number of people at risk increases (Kogut and Ritov, 2005), resulting in the nonrational reaction where “the more who die, the less we care” (Slovic, 2010b).

INDIVIDUAL DIFFERENCES

People differ in their values and attitudes toward risk (for themselves and others) as well as in their propensity to engage in information-processing that facilitates affective responses to risk. Generally more pro-social value orientations are related to feeling more distress and greater motivation to act in ways that are beneficial to others (Van Lange et al., 2007). Similarly, differences in affective reactivity, mental imagery, and information-processing styles play a role in the generation of feelings that underlie responses to risk. In our studies we have found evidence that differences in numerical ability together with variations in

presentation format change the perception of risk for others (Dickert et al., 2011a). A consistent finding of these studies is that the concreteness and use of mental imagery in valuations of people at risk is moderated by the numerical ability of the perceiver. Lower numerical ability leads people to construct clearer mental representations and base their valuations on them, whereas people with higher numerical ability have more abstract mental representations that are not related to their valuations.

Another demonstration of how individual differences influence affective responses and valuations of people at risk comes from Kogut (2011), who has shown that people with a strong belief in a just world (i.e., those who believe the world is a just place) are more likely to blame others for their predicament and are less willing to provide help. Thus, their risk perception is prominently influenced by their general attitude toward blame and responsibility. More importantly, however, Kogut (2011) argues that these general attitudes influence valuations of lives particularly when the people at risk are depicted in a way that facilitates clearer mental images and stronger emotional responses (i.e., when they are identified).

ATTENTION

An additional precursor to the generation of feelings is the ability to focus one's attention on the people at risk. In line with the effects of mental imagery, this is usually easier for a single individual at risk rather than a group of people (Hamilton and Sherman, 1996). In our research we have found that presenting similar individuals at risk as part of a group reduces affective responses to any single one of them (Dickert and Slovic, 2009). Furthermore, affective responses such as sympathy toward a starving child decreased when the face of the child disappeared from view. The nature of affective responses appears to be stronger when triggered by something immediate rather than reconstructed from memory. These results highlight the degree to which simple fluctuations in our attention can influence our feelings and thus our values. This helps explain why our responses toward opportunities to aid people whose lives are endangered are unstable and often inconsistent with normative principles that we nonetheless strongly endorse.

SUMMARY

Although preferences and their underlying values are assumed to be stable by classical economic theory, empirical research has often shown deviations from normative principles and documented how preferences under risk are constructed and even shaped by seemingly irrelevant factors. What is remarkable about the construction of preference is its ubiquitous presence in nearly every decision-making domain. In accord with this idea, we argue that values (and valuations) can also be constructed and are therefore unstable. This is particularly evident in situations where valuations depend on affective responses (e.g., valuations of other people at risk). The research documenting mental imagery and attention as underlying processes of affective responses and research showing individual differences as moderators of these processes help explain why we do not hold stable values for saving human lives. Descriptive models show that our responses to people at risk are not always rational nor immune from biases common to other forms of preference. We suggest that the processes leading up to inconsistencies in valuations are strongly related to affect and affect regulation strategies. While most of us would probably agree that every life should be valued highly, our behaviors toward people in danger are often inconsistent with this belief.

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