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Disloyalty aversion: Greater reluctance to bet against close others than the self

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ABSTRACT

We examine the mechanisms by which loyalty can induce risk seeking. In seven studies, participants exhibited *disloyalty aversion*—they were more reluctant to bet on the failure of a close other than on their own failure. In contrast, participants were just as willing to bet on the failure of strangers as on their own failure. This effect persisted when bets were made in private, payouts were larger for betting on failure than success (Studies 1–4, 6), and failure was most likely (Studies 2–6). We propose that disloyalty aversion occurs because the negative identity signal to the self that hedging creates can outweigh the rewards conferred by hedging. Indeed, disloyalty aversion was moderated by factors affecting the strength of this self-signal and the payout of the hedge, including the closeness of the other person, bettors' trait loyalty, and payout magnitude (Studies 3–5). Disloyalty aversion strongly influences social preferences involving risk.

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1. Introduction

In 1975, Stephen Hawking made a bet with fellow theoretical physicist, Kip Thorne. If Hawking's black hole theory were correct, Hawking would cover a one-year magazine subscription for Thorne. If Hawking's theory turned out to be incorrect, however, Thorne would instead cover Hawking's more costly four-year subscription to another magazine. In making this bet, Hawking "hedged" one of his most influential theories. He protected himself against potential personal disappointment by making a counter-investment. If his hard work were disproven, he would at least have a consolation prize. This curious behavior is not unheard of. People readily invest in insurance and hedge in financial markets, even when their exposure to risk is low (e.g., Jones & Berglas, 1978; Malhotra, 1999; Norem & Cantor, 1986). If Thorne had been the one who came up with the theory of black holes, however, we suggest that Hawking would exhibit *disloyalty aversion*. He would have been much more reluctant to bet against his friend than against himself. This is because the potential to profit from Thorne's failure would create an uncomfortable loyalty conflict, a motivational conflict between Hawking's own pecuniary self-interest and his loyalty to Thorne.

Loyalty conflicts involving hedging are prevalent in consequential financial decisions. Employees decide whether to invest their savings in company stock or more wisely hedge against their employer's failure by investing in its competitors (Arthur & Sheffrin, 2007; Benartzi, Thaler, Utkus, & Sunstein, 2007; Markowitz, 1968; Meulbroek, 2005). Partners decide whether to purchase life insurance on the death of their loved ones to pay for their own living expenses in case he or she dies. Similar dilemmas are present in more quotidian financial decisions, such as whether to bet against the house or against friends when playing craps at a casino. Hedges against others are not limited to financial domains. Parents decide whether to enroll their children in national fingerprinting programs, for instance, such as the National Child Identification Program, so that the child can be more easily found or identified if he or she is lost or killed in an accident.

Hedging not only addresses loss directly (e.g., reducing financial losses or risk), but it also has the potential to buffer the bettor from the negative emotions incurred by the misfortune of a close other. Betting that his daughter's team will lose its soccer game, for instance, might buffer a father's disappointment if her team loses. Despite the potential tangible and emotional benefits of hedging, we suggest that people are reluctant to hedge against negative outcomes for close others, such as family and friends, even in cases where the payout of the hedge could be used directly for the close other's benefit.

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We suggest that this reluctance to hedge against close others is due to the negative identity signal to the self incurred by hedging. Hedging would signal to the bettor that she favored her own self-interest when it conflicted with a loyalty motivation that binds close relationships (Graham & Haidt, 2010; Morewedge, Tang, & Larrick, 2016; Smith, Aquino, Koleva, & Graham, 2014). Moreover, we suggest that the diagnostic cost of this self-signal is sufficiently strong that people are not only reluctant to hedge against close others, but they are also more reluctant to hedge against close others than against themselves. We suggest that people exhibit disloyalty aversion—that people are more willing to bet on their own failure than the failure of a close other, even if that close other never learns of their bet. In economic terms (Bodner & Prelec, 2003), betting against a friend has negative diagnostic utility that may outweigh the outcome utility (e.g., money) of hedging. In contrast, because betting against the self is in one's self-interest, it creates no negative self-signal. In seven studies, we test whether people exhibit disloyalty aversion and test our proposed loyalty signaling account of this phenomenon. We find that people are indeed more reluctant to hedge the failures of close others than their own failures, and that a loyalty signaling mechanism better explains disloyalty aversion than other plausible psychological processes. We propose that loyalty signaling to the self is a key mechanism influencing social preferences involving risk.

1.1. Hedging against negative outcomes for the self

When people face a risky decision, they are usually risk-averse (Kahneman & Lovallo, 1993). They prefer a lower risk "safe option" to a riskier option of equal expected value with more extreme negative and positive possible outcomes. In financial investments, hedging is a risk-minimizing strategy, whereby gains from one investment are used to offset potential losses in a companion investment (e.g., insurance; Smith & Stulz, 1985). Applied to desirable and undesirable outcomes like one's daughter's soccer game, betting on a desired outcome increases risk because it increases both the gains accrued if the desired outcome occurs (e.g., +$50 and daughter's win) and the losses incurred if the undesired outcome occurs (e.g., −$50 and daughter's loss). In contrast, hedging against the desired outcome is a more conservative option. It minimizes risk by reducing both the gains accrued if the desired outcome occurs (e.g., −$50 and daughter's win) and the losses incurred if the undesired outcome occurs (e.g., +$50 and daughter's loss). In classic economic terms, hedging maximizes utility because it decreases the variance that can result from an uncertain outcome.

Economic or decision theories that assume diminishing marginal utility predict that people should prefer an option that reduces losses and gains. People should prefer to hedge against rather than bet on desired outcomes (Edwards & von Winterfeldt, 1986; Fischer, Kamlet, Fienberg, & Schkade, 1986). People do employ hedging as a risk diversification strategy for many significant financial decisions, such as the composition of their investment portfolio and purchase of insurance. If people identify with close others and are emotionally affected by their outcomes (Batson, 1991; Decety & Ickes, 2009; Kelley & Thibaut, 1978; Singer et al., 2004), then absent a unique conflict arising from social preferences, these theories suggest that people should bet on, rather than against, the failure of close others.

1.2. Decisions involving the self and others

Although hedging minimizes exposure to risk, we suggest that it creates a loyalty conflict even when decided in private—a conflict between loyalty motives and self-interest (Morewedge et al., 2016). Consistent with the interdependence literature involving economic games, we define self-interest as financial self-interest (although we acknowledge that utility can be increased through other means, including strengthening a relationship). Classic interdependence literature (e.g., game theory) has focused on actors in two-sided relationships whose individual decisions impact each other simultaneously (von Neumann & Morgenstern, 1947/2007). The economic approach to analyzing interdependent settings assumes that participants are motivated to pursue their own self-interest and maximize their payoffs. In the prisoner's dilemma game, for example, Player 1 must decide to cooperate or defect. Player 1's final payoff is dependent upon whether Player 2 decides to cooperate or defect as well (Axelrod, 2006). In a one-shot game, defecting is the dominating strategy, but mutual defection yields a worse average outcome than if both parties cooperate (Axelrod, 2006). Despite the dominating strategy of defecting, non-pecuniary considerations, including how friendly, attractive, and trustworthy the other player seems, affect these decisions by reducing defection rates (Rapoport, Diekmann, & Franzen, 1995; Scharlemann, Eckel, Kacelnik, & Wilson, 2001; Solnick & Schweiter, 1999).

Social considerations play a significant role in interdependence decisions. Kelley and Thibaut (1978) argued that objective payoff structures in such games are transformed by a concern for others. Monetary payoffs are subsequently not experienced at their face values because they are changed by relational concerns. When the desires of partners in a relationship are in conflict, each partner considers his or her self-interest and the other's interests in the decision making process. They may even sacrifice their own goals in pursuit of their partner's goals (McClintock & Liebrand, 1988; Rusbult & Buunk, 1993). If John wants to vacation on the beach but Mary wants to hike in the mountains, for example, Mary's preferences may alter the value of both options for John. John may perceive hiking to be the more desirable vacation when accounting for his utility, her utility, and their coaction (Rusbult & Van Lange, 2003).

Two kinds of decisions have been tested by previous research examining interdependence dilemmas in decision-making affecting relationships: coordinated decisions that affect both persons (e.g., decisions by both players in prisoner's dilemma determine their final payoffs; Dawes, McTavish, & Shaklee, 1977; Rapoport & Chammah, 1965), and decisions made by one person that affect both persons (e.g., how much a dictator keeps and gives in a dictator game determines both player's payoffs; Bohnet & Frey, 1999; Charness & Gneezy, 2008; Cryder, Springer, & Morewedge, 2012; Van Vugt & Hart, 2004). Social considerations in these cases include predictions about the choice of the other player, guilt, and inequity aversion.

1.3. Loyalty conflict as an explanatory mechanism

In our research, we make a novel contribution by focusing on decisions that only affect the self but that are still influenced by social preferences for others. In the case of hedging, we examine how concern for others influence choices that only affect the decision maker. Even if close others are unaware that one has bet on their misfortune, betting should create a feeling of conflict between the bettor's self-interest and loyalty to the close other. We describe this tradeoff as a *loyalty conflict*, a case in which loyalty motives conflict with other attractive courses of action (Morewedge et al., 2016; Van Vugt & Hart, 2004). Loyalty conflicts precede behavioral acts of loyalty, where actors sacrifice personal interests in support of the interest of a group or person (Brody & Rubin, 2011; Van Vugt & Hart, 2004).

There are two main reasons why people are motivated to be loyal. One motivation is social signaling to external audiences (Spence, 1973). These social signals influence observers' impres-