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Misery Is Not Miserly

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Misery is not Miserly: Sad and Self-Focused Individuals Spend More

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Abstract

Misery is not miserly: sadness increases the amount of money decision makers give up to acquire a commodity (Lerner, Small, & Loewenstein, 2004). The present research investigated when and why the "misery-is-not-miserly" effect occurs. Drawing on William James's (1890) concept of the material self, we tested a model specifying relationships among sadness, self-focus, and the amount of money decision makers spend. Consistent with our Jamesian hypothesis, results revealed that self-focus both moderates and mediates the effect of sadness on spending. Results were consistent across males and females. Because the study used real commodities and real money, results hold implications for everyday decisions. They also hold implications for theoretical development. Economic theories of spending may benefit from incorporating psychological theories – specifically theories of emotion and the self.

Keywords

emotion; sadness; self; self-focus; decision making; choice; behavioral economics

> A man's Self is the sum total of all that he CAN call his, not only his body and his psychic powers, but his clothes and his house … his lands and horses, and yacht and bank-account. All these things give him the same emotions. (James, 1890, p. 291)

Since William James's classic work (1890), the self has been regarded as one of the most important concepts in psychology. A survey of psychology articles from 1974–1993 found over 31,000 articles that addressed the self (Ashmore & Jussim, 1997). Baumeister's authoritative review on the self for the *Handbook of Social Psychology* reported that "trying

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to keep abreast of the research on the self is like trying to get a drink from a fire hose." (1998, p. 681)

Despite the central role that theories of the self play in psychology, the rapidly emerging field of behavioral economics (i.e., the application of psychological insights to economics) has had relatively few contributions drawing on theories of the self (exceptions include Babcock & Loewenstein, 1997; Beggan 1992; Diekman, Samuels, Ross, & Bazerman, 1997; and Larrick, 1993). The lack of empirical work connecting the self to economic choices exists even though William James (1890) posited over a century ago that material goods play a crucial role in defining the self. Indeed, James held that losing material possessions has an influence so strong that it results in "a sense of shrinkage of our personality, a partial conversion of ourselves to nothingness." (James, 1890, p. 293)

James also hypothesized a close connection between the self (broadly construed to include possessions) and emotion (James, 1890). He did not, however, connect the self with specific emotions and specific material decisions, nor did he have the opportunity to present empirical support for his views. In this paper, we examine potential empirical connections among emotion, the self, and material decisions in the context of the "miserly-is-not-miserly" effect.

The "Misery is not Miserly" Effect

The misery-is-not-miserly effect is the tendency for sadness to carry over from past situations to influence normatively unrelated economic decisions, increasing the amount of money that decision makers give up to receive a commodity. In one study, for example, decision makers who received a sadness induction, compared to a neutral induction, subsequently gave up 30% more money to acquire a commodity (Lerner, Small, & Loewenstein, 2004). It is important to emphasize that the misery-is-not-miserly effect, like other emotion carryover effects, involves incidental emotion, i.e., emotion that should be irrelevant to the decision at hand (see Loewenstein & Lerner, 2003).

Perhaps the most curious thing about the misery-is-not-miserly effect is that it runs counter to predictions from valence-based and mood-congruent theories of decision making. According to these theories, negative moods lead people to globally devalue what they perceive. Such devaluation could appear in contexts such as stock market decisions (Hirschleifer & Shumway, 2003), or life satisfaction judgments (Schwarz & Clore, 1983; for a review, see Loewenstein & Lerner, 2003). Empirically, however, the effects of sadness on buying run counter to the predicted pattern. Even though sadness is negatively valenced, it leads people to increase, rather than decrease, valuation of commodities that they might purchase (Lerner et al., 2004).

Misery-is-not-Miserly and Theories of the Self

Why might sadness elicit behaviors that are inconsistent with valence-based predictions? One possibility is that sadness, in contrast to some other negative emotions, has an intimate connection with the self. Previous work demonstrates that sadness inductions can trigger increased self-focus (Salovey, 1992; Wood, Saltzberg, & Goldsamt, 1990) and can do so

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even without influencing the conscious experience of sadness (Silvia, Phillips, Baumgaertner, & Maschauer, 2006).

The present study investigated the hypothesis that the experience of feeling sad and self-focused leads individuals to pay more for commodities. As shown in Figure 1, our model suggests that a sad event, coupled with self-focus, triggers an implicit devaluation or diminished sense of self (for a possible analogue in depression, see Blumberg & Hokanson, 1983). Self-devaluation, in turn, triggers an implicit desire to enhance the self. Finally, the desire to enhance the self elicits increased valuation of possessions that one might acquire. In sum, we predict that when self-focus is high, sad individuals experience an implicit devaluation of the self, which in turn triggers increased valuation of new commodities.

The Present Study

The primary goal of the present study was to test two main implications of our model. First, the study examined if the misery-is-not-miserly effect depends on one's level of self-focus (i.e., does self-focus moderate the misery-is-not-miserly effect?) Second, the study tested if self-focus explains the process of the misery-is-not-miserly effect (i.e., does self-focus mediate the misery-is-not-miserly effect?)

A secondary goal was to examine the generalizability of the misery-is-not-miserly effect. Whereas previous research investigated the misery-is-not-miserly effect by observing the amount of cash individuals would forgo to receive a commodity (i.e., their "choice prices"; Lerner, et al., 2004), the current research investigated the effect by observing a more common choice, the amount that participants give up from their own money to receive a commodity (i.e., their "buying prices"; see Kahneman, Knetsch, & Thaler, 1991).

Method

Participants

Thirty-three participants (13 females, 20 males) responded to an advertisement offering $10 for participation. Participants' ages ranged from 18–30 years (M_{age}=21.2).

Procedure

Participants received their participation payment upon arrival. They sat in individual cubicles, each equipped with a computer and headphones. For screening purposes, participants first completed an English fluency assessment and baseline emotion measure. They then expected to complete three separate tasks, which they were told had been combined for convenience.

Emotion induction (task 1)—Participants were randomly assigned to a sadness or neutral condition. *Sad-condition participants* watched a previously validated (Gross & Levenson, 1995) video clip about the death of a boy's mentor (from *The Champ*). *Neutral-condition participants* watched a previously validated video clip (Lerner, et al., 2004) about the Great Barrier Reef (from a National Geographic special). Each clip lasted less than 4 minutes.

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Self-focused essay (task 2)—All participants next completed a corresponding essay focused on the self, consistent with previously established emotion induction procedures (see Lerner et al., 2004). *Sad-condition participants* wrote about how a situation like the one portrayed in the video clip would affect them personally. *Neutral-condition participants* wrote about their daily activities.

To estimate each individual's self-focus, two independent coders, blind to hypotheses, counted the frequency that participants wrote the following self-references: *I, me, my, and myself* (see also Campbell & Pennebaker, 2003). Inter-coder consistency was nearly perfect, r=0.98, p <0.001, p_{rep}=0.99.

Buying decisions (task 3)—Participants were shown a sporty, insulated water bottle and told that they could trade any amount up to the total of their experiment payment ($10) to buy the water bottle. Following standard price-elicitation procedures from experimental economics (see Becker, DeGroot, & Marschak, 1964), participants chose between buying the water bottle or not buying the water bottle at prices from $0 to $10 in 50-cent increments. As an incentive for revealing true values, participants were informed that one price would be randomly selected in each session to count for real[1] (see Becker et al., 1964) and that if they chose to buy the water bottle at that price, they would pay that price from their experiment payment and receive the water bottle in return.

Manipulation check and debriefing—Immediately after task 2, participants reported how intensely they felt 19 emotions; 6 were of primary interest.[2] A *sadness composite* included the average of "blue," "sad," and "depressed" (α=.88). A *neutral composite* included the average of "indifferent," "neutral," and "unemotional" (α=85).

Next, participants completed demand-awareness questions. To encourage truthful responses, participants were told that if they guessed the study's hypotheses, they would receive a $5 gift certificate to Amazon.com.

Finally, participants learned the randomly selected water bottle price. Based on that price and participants' indicated preferences, participants kept all participation earnings, or kept a portion of the earnings and exchanged the rest for the water bottle.

Results[3]

Manipulation Checks

Emotion inductions were effective in magnitude and specificity. *Neutral-condition participants* reported feeling significantly more neutral than sad, *Ms*=4.2 versus 1.4 respectively, $t(13)=3.29$, $p<0.01$, $p_{rep}=0.96$. *Sad-condition participants* reported feeling significantly more sad than neutral, *M*s=4.6 versus 2.2 respectively, $t(16)=5.42$, p <0.001,

[1]By using a randomly-generated price for the water bottle, instead of using the market price, we discouraged participants from reporting prices lower than market price in attempts to get a "deal" (see Becker et al., 1964).
[2]Emotion manipulation checks occurred after the main dependent variable because labeling one's feelings after incidental-emotion inductions can reduce the effect of such emotions (Keltner, Locke, & Audrain, 1993; Schwarz & Clore, 1983).
[3]Data analyses excluded two individuals because they misunderstood experiment instructions and asked to re-do the choice task.

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p_{rep}=0.99. *Sad-condition participants* also reported feeling significantly more sad than any other measured negative emotion, including anger, M=2.6, p=0.001, p_{rep}=0.99, disgust, M=2.5, p=0.001, p_{rep}=0.99, and fear, M=2.5, p=0.001, p_{rep}=0.99.

Main Analyses

Consistent with prior research, *sad-condition participants* set higher buying prices than did *neutral-condition participants, M*s=$2.11 and $0.56 respectively, t (29)=4.02, p=0.001, p_{rep}= 0.99, d=1.41. Thus, the effect of sadness observed using a "buying price" paradigm parallels the effect of sadness observed using the "choice price" paradigm (see Lerner et al., 2004). In fact, the effect of sadness on valuation in the current buying price paradigm was significantly larger (d=1.41) than in the original choice price paradigm, d=0.48; $\chi^2(1)$= 4.1, p<0.05.

To test the hypothesized moderating role of self-focus, we conducted a regression analysis predicting buying price with emotion condition, self-focus (centered), and their interaction term. Results revealed an Emotion Condition X Self-Focus interaction, β=1.30, t(27)=2.29, p=0.03, p_{rep}=0.91; see Figure 2. Consistent with hypotheses, tests of simple slopes (Aiken & West, 1991) revealed no association between being in the sadness condition and buying prices at low levels (sd=−1) of self-focus, β=0.22, t(27)=0.43, p=0.67, p_{rep}=0.38, but a positive association between being in the sadness condition and buying prices at high levels (sd=+1) of self-focus, β=2.19, t(27)=2.55, p<0.02, p_{rep}=0.93.

Although the interaction described above is consistent with our theoretical expectations, it is possible that the results arose from an artifact of the experimental conditions. To confirm that the interaction was due to the experience of actual sadness and not an artifact, we calculated a second interaction model, substituting self-reported sadness for emotion condition. Consistent with the idea that the actual experience of sadness drove the effect, results revealed a significant interaction between self-reported sadness and self-focus, β=0.37, t(30)=2.32, p<0.03, p_{rep}=0.91. Once again, tests of simple slopes revealed no association between sadness and buying price at low levels of self-focus, β=0.10, t(27)=0.40, p=0.69, p_{rep}=0.37, but a positive association between sadness and buying price at high levels of self-focus, β=0.94, t(27)=3.18, p<0.01, p_{rep}=0.97.

Next, we conducted analyses examining the mediational, or explanatory, role of self-focus (see Baron & Kenny, 1986). Results revealed that self-focus mediated the relationship between emotion condition and buying price, Sobel test =2.00, p<0.05, p_{rep}=0.88. A second analysis confirmed that this relationship held when self-reported sadness was substituted for emotion condition, Sobel test=2.05, p<0.05, p_{rep}=0.89. Parameter estimates for both mediational models appear in Figure 3.

As maintained by Judd, Kenny, & McClelland (2001; see also, Judd & Kenny, 1981), a variable can serve as both a moderator and mediator for a single relationship. We observe that self-focus plays both a moderating and mediating role for the relationship between sadness and buying price. However, because we do not observe an effect of sadness on buying price when self-focus is low, the mediation results should be interpreted as holding

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only for average (and above average) levels of self-focus (C. Judd, personal communication, August 13, 2007).

General Discussion

The current study tested models examining relationships among incidental emotion, the self, and spending decisions. Results demonstrated that the misery-is-not-miserly effect occurs only when self-focus is high. That is, self-focus moderates the effect of sadness on spending. Moreover, mediational analyses revealed that at sufficiently high levels of self-focus, self-focus mediates (explains) the relationship between sadness and spending. Finally, results showed that sadness and self-focus influence individuals' actual buying prices, not just their choice prices (see Lerner et al., 2004).

By revealing that self-focus plays both a moderating and mediating role in the relationship between sadness and spending, the findings connect William James's concept of the material self to contemporary theories of emotion and decision making. Whereas spending decisions have been addressed primarily by economic theories, the present results highlight a central role for psychological theories of emotion and the self.

Alternative Explanations

It may appear, contrary to our Jamesian account, that existing theories of mood-repair (e.g., Clark & Isen, 1982) provide an alternative explanation for the present results. According to mood-repair theories, individuals in a negative emotional state are predisposed to engage in potentially mood-improving behaviors such as helping others. These theories make no mention of self-focus, however, and therefore they do not predict the present pattern of data. Moreover, the misery-is-not-miserly effect still occurs even after participants receive an effective happiness induction (Garg & Lerner, 2006), revealing that the effect persists even after a mood-repairing event.

The present findings do, however, allow more than one explanation for the link among sadness, self-focus, and spending. Our working model (see Figure 1) proposes that sad and self-focused individuals spend more on commodities because they seek self-enhancement. Another possible model is that sad and self-focused individuals experience reduced self-value or sense of entitlement, and therefore value other things more by contrast. This contrasting-value model could be tested in future studies by examining if sad and self-focused people value objects more even when they cannot receive the objects (and therefore have no opportunity for self-enhancement). Results supporting either model would have important implications for models of sadness and choice.

Implications for Related Literatures

The present findings have theoretical value for multiple literatures. For example, for theories of emotion, the results demonstrate that valence-based models of affect and decision-making require updating. Valence-based models of emotion predict that negative emotions elicit global devaluation of what one perceives. The misery-is-not-miserly effect, however, shows a different pattern: when self-focus is sufficiently high, sadness increases valuation of commodities that one may purchase. The current findings imply that valence, although a

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powerful dimension of emotion, needs to be considered in the context of self processes for accurate predictions of behavior.

As another example, the results hold implications for models of clinical depression. Depression, like sadness, is associated with increased self-focus (Ingram, 1990; Watkins & Teasdale, 2004) and a diminished sense of self-worth (Gotlib & Hammen 1992; Watkins & Teasdale, 2001). Future studies could explicitly test the role of self-focus and self-devaluation in both sad and depressed individuals' decisions. Results from these studies might clarify 1) the relationship between sadness and depression 2) common decision processes underlying sadness and depression and 3) the potential for new clinical interventions.

In sum, the present findings bring William James's classic concept of the "material self" into modern theorizing at the intersection of psychology and behavioral economics. Combining methods from economics with theories from psychology, the results reveal the benefit of a multi-disciplinary approach to understanding emotional and cognitive influences on decision making.

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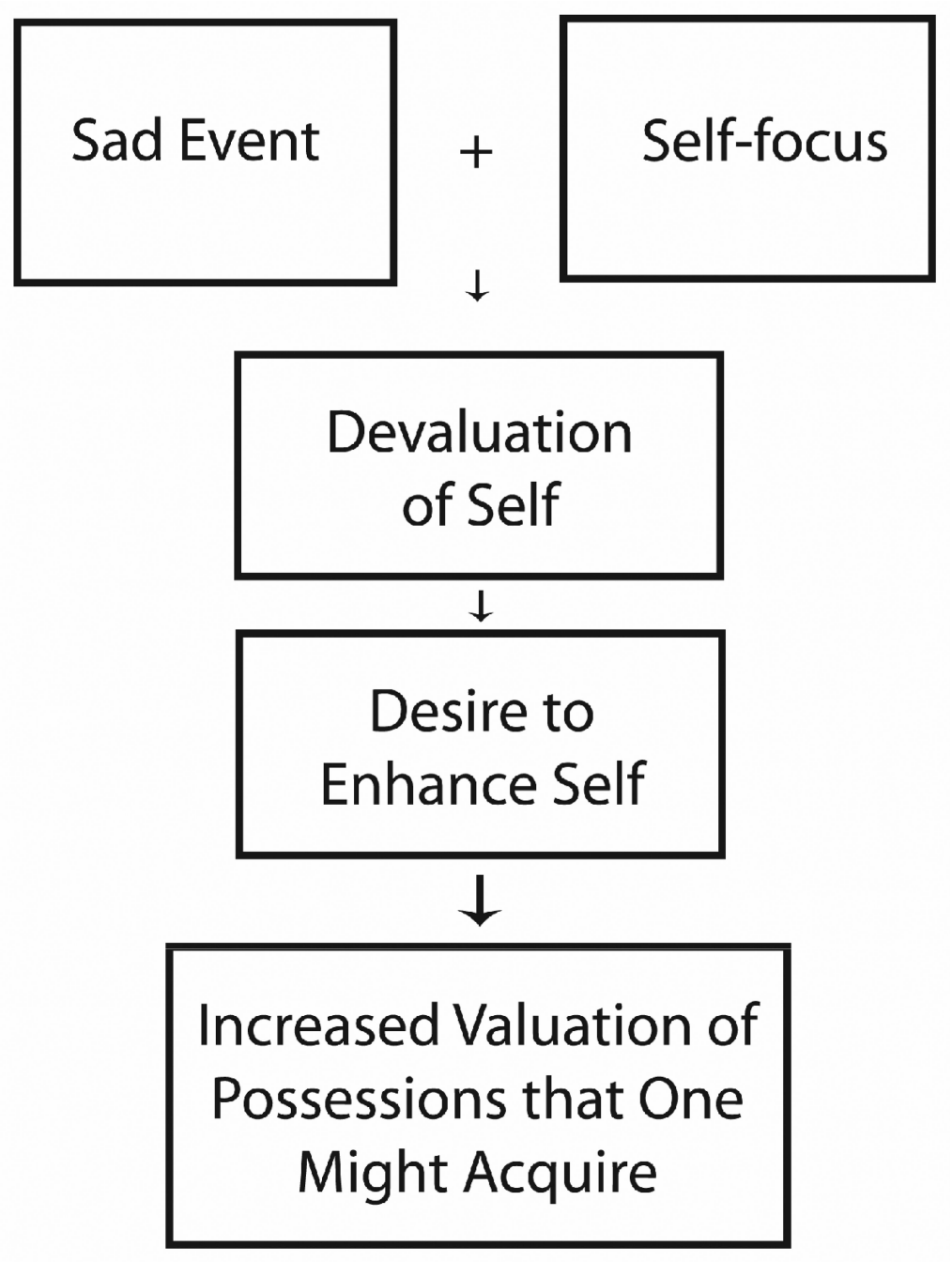


Figure 1.
Sadness and self-focus influence valuation of material possessions – A conceptual model.

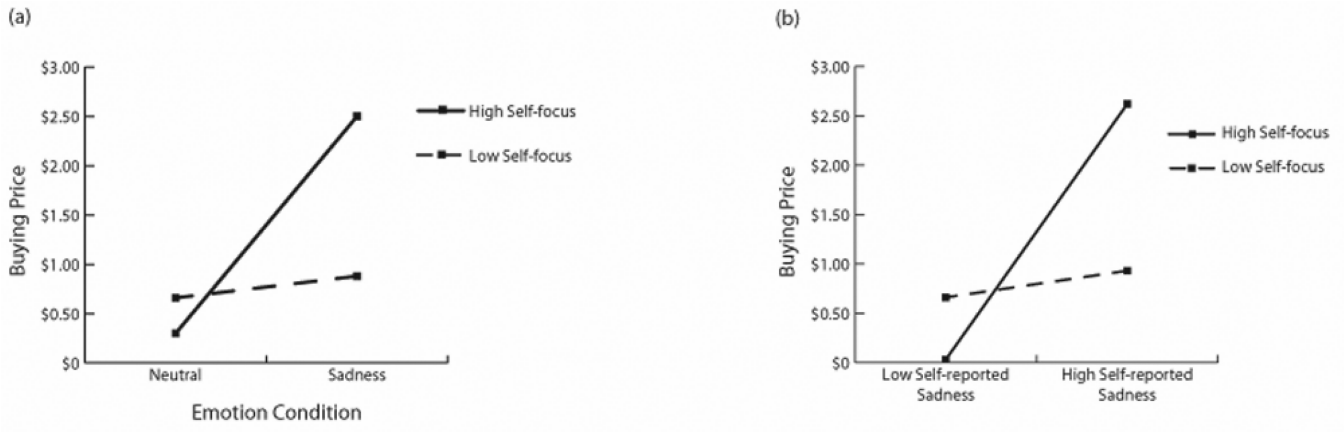


Figure 2.

High levels of sadness and self-focus interact to increase spending. When self-focus is high, sad condition participants spend more than neutral condition participants (panel a) and participants with high levels of self-reported sadness spend more than participants with low levels of self-reported sadness (panel b). When self-focus is low, there is no relationship between sadness and spending (panels a and b).

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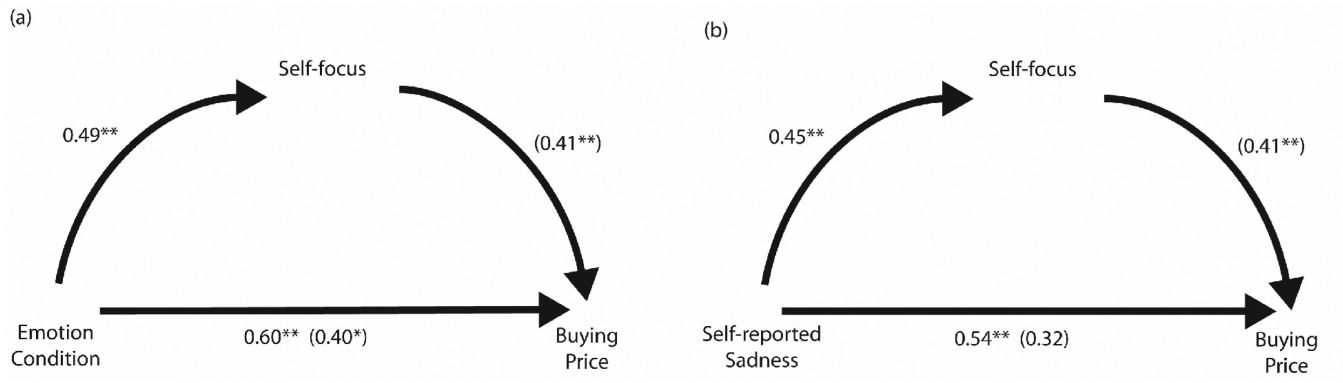


Figure 3.

Self-focus mediates the effect of a sadness condition (panel a) and self-reported sadness (panel b) on buying price. Coefficients without parentheses represent parameter estimates for simple linear regression models. Coefficients in parentheses represent parameter estimates for a regression model containing both predictors. Single (double) asterisks signify parameter estimates different from zero at $p<0.05$ ($p<0.01$).

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