A Little Piece of Me: When Mortality Reminders Lead to Giving to Others

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Past research demonstrates that reminders of one's own mortality can lead to materialistic and self-serving consumer behaviors. In contrast, across five studies, we explore a condition under which mortality salience (MS) leads to increased tendency to give away one's possessions—when the donation act is high in transcendence potential. We propose and find that consumers are more likely to donate their possessions to charity under MS (vs. comparison conditions) when the product is considered highly (vs. not highly) connected to the self. Moreover, we demonstrate that this tendency manifests only when transcendence is attainable through donation. In support of the proposition of transcendence as the underlying mechanism, the observed effects are attenuated under conditions where: (1) transcendence has already been satiated via alternative means or (2) the donated possession will not transcend the self (i.e., its physical integrity is lost by being broken down and recycled). The theoretical and practical implications of the work are discussed.

Keywords: mortality salience, self-connected products, charitable giving, product disposition, transcendence

The greatest use of a life is to spend it on something that will outlast it.

~William James

Everyone must leave something behind when he dies, my grandfather said. A child or a book or a painting or a house or a wall built or a pair of shoes made. Or a garden planted. Something your hand touched some way so your soul has somewhere to go when you die, and when people look at that tree or that flower you planted, you're there.

~Ray Bradbury

The quotes by James and Bradbury above highlight that the desire to leave a piece of the self behind after death is human nature. In the modern era, the conversation surrounding end-of-life planning has shifted from the mere exchange of financial assets to heirs to something encompassing the meaning and the legacy of the life left behind. Indeed, the language of financial planning has shifted the discussion from "estate planning" to "legacy planning" (Scott 2018). While estate planning had a focus on the financial resources a person might give to others after passing away, legacy planning reflects the worth of one's life in terms of human capital, such as knowledge, values, relationships, and contributions to society (Scott 2018). Instead of asking how much money and goods one might leave behind, legacy planning seeks to weave a narrative that reflects the meaning of the life lived (Hermann 2017).

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Because of the desire to leave a lasting and meaningful self-representation, more and more services are emerging with an emphasis on planning for the end of life in a way that discusses how the individual would best want to be remembered (Winn 2019).

The current research takes an in-depth look at an interesting implication of this desire to leave some form of legacy behind that symbolically allows one's identity to exist in the future. In particular, we seek to explore the influence of mortality salience (MS) (i.e., the understanding that one's death is inevitable; see Terror Management Theory (TMT), Solomon, Greenberg, and Pyszczynski 1991) on people's willingness to donate their possessions. We make the novel argument that when faced with reminders of mortality, people will be more inclined to give away rather than maintain self-connected possessions. We argue that this is because MS increases a desire for transcendence (e.g., to extend beyond the physical self to be a part of something greater; Koltko-Rivera 2006), which can be fulfilled when an act of giving allows for a part of one's identity to symbolically exist beyond the physical self. Because self-connected possessions symbolically represent identity (Belk 1988; Ferraro, Escalas, and Bettman 2011), donating a self-connected possession can allow for transcendence, enabling the individual to continue to symbolically exist outside the boundaries of the physical self and thereby transcend death. Transcendence motivation as a predictor of possession donation, to our knowledge, has not been examined in previous work.

This research contributes to the existing literature in several ways. First, we extend the mortality-salience literature by demonstrating a novel downstream consequence of mortality threat—the tendency to give away one's material possessions. While previous work has identified the conditions under which MS can lead to increases in monetary donations (Jonas et al. 2002), research has not explored the conditions under which MS might spur possession donation. In fact, existing research might lead to the prediction that MS could spur the desire to hold on to meaningful material possessions (e.g., cherished possessions; Curasi, Price, and Arnould 2004; Price, Arnould, and Curasi 2000). Thus, we build on the mortality-salience literature to demonstrate the conditions under which thoughts of mortality will lead to giving away one's own possessions. Specifically, possession donation increases when the act of donation has transcendence potential (i.e., linked to the self through self-connected meaning or through signatures; and when the donation remains intact) and when transcendence is not satiated through other means (i.e., membership in a transcendent group).

Second, in examining possession donation through the lens of MS, we also contribute to the growing body of work exploring factors that uniquely influence the giving of tangible possessions (Winterich et al. 2017) and product disposition more generally (Donnelly et al. 2017; Trudel and Argo 2013; Trudel, Argo, and Meng 2016; White, MacDonnell, and Dahl 2011). Importantly, by demonstrating that giving away self-connected possessions can be a form of strategic self-transcendence, we run counter to research suggesting that consumers are particularly reluctant to give up possessions that are closely connected to the self (Ferraro, Escalas, and Bettman 2011; Winterich et al. 2017). Indeed, we show that under the conditions outlined in our studies (i.e., when transcendence is possible), consumers are not motivated to keep a link to the self-connected possession (Winterich et al. 2017) but instead are motivated to give that possession to others.

Third, we highlight a unique process underlying the desire to give away possessions in response to MS. Past work in the TMT tradition alludes to transcendence through symbolic immortality motives (Pyszczynski et al. 2004a, 2004b; Solomon et al. 1991). This work largely suggests that people attempt to transcend the physical self in response to MS by enacting behaviors that support relevant worldviews or values (Arndt, Greenberg, and Cook 2002; Dechesne, Janssen, and van Knippenberg 2000; Florian and Mikulincer 1997; e.g., by donating to in-group as opposed to out-group causes; Jonas et al. 2002). In contrast, the current work highlights a unique form of self-transcendence wherein the consumer's identity can symbolically transfer to a tangible possession. We test for this notion through a series of moderation studies, where we find that possession donation under conditions of MS is most likely to occur when transcendence potential is high. Specifically, MS increases giving of possessions when (1) the self is connected to the possession in some way, (2) the desire for transcendence has not already been satiated, and (3) the physical integrity of the possession enables transcendence (i.e., the product remains intact, rather than being broken down in some way). While past research suggests that the possessions one has can symbolically become a part of the self (Belk 1988; Ferraro et al. 2011; Richins 1994), work has not demonstrated that the self can symbolically become a part of one's possessions, allowing for self-transcendence in the face of MS. By demonstrating this novel form of transcendence as the mechanism underlying the effects, we extend work on MS, charitable giving, and identity representation.

THEORETICAL OVERVIEW

Terror Management Theory

TMT (Greenberg, Pyszczynski, and Solomon 1986; Solomon et al. 1991) builds upon work by Becker (1973) who argued that people have a desire to ensure their existence is significant and purposeful. Thus, when faced with mortality reminders, this desire for meaning leads to existential anxiety created by the inevitability of death (Greenberg et al. 1986). According to TMT, there are two

key ways in which people assuage death anxiety. First, people uphold various "cultural worldviews" that can serve to provide meaningful order to the world. Cultural worldviews refer to shared standards, beliefs, and assumptions that help to create a sense of meaning, order, and permanence (Greenberg et al. 1992). Supporting and reaffirming important cultural worldviews in response to MS allows people to achieve symbolic immortality by linking the self to something bigger and more lasting than the physical self (Pyszczynski et al. 2004a; Solomon et al. 1991). For example, MS increases preference for other people who share one's beliefs (Arndt et al. 2002; Dechesne et al. 2000; Greenberg et al. 1990, 1992) and it leads to harsher punishments and avoidance of those who violate one's beliefs (Florian and Mikulincer 1997; Rosenblatt et al. 1989).

The second means through which existential anxiety can be buffered is via a self-esteem mechanism. Self-esteem, according to TMT, is linked to the belief that one is a valuable contributor to a meaningful world (Pyszczynski et al. 2004b). One response to MS is to bolster one's sense of self-esteem (Greenberg et al. 1992; Harmon-Jones et al. 1997). In support of this view, those low (but not high) in self-esteem exhibit increased accessibility of death-related thoughts and greater worldview defense in response to mortality reminders (Arndt and Greenberg 1999; Harmon-Jones et al. 1997; Mikulincer and Florian 2002). Moreover, those lower in self-esteem tend to behave in ways that boost self-esteem, either in accord with culturally valued behaviors (Greenberg et al. 1992) or by enacting behaviors linked to one's own sources of self-esteem, such as fitness or beauty (Arndt, Schimel, and Goldenberg 2003; Routledge, Arndt, and Goldenberg 2004).

MS and Possession Donation

The existing TMT literature offers mixed predictions regarding whether MS should increase or decrease possession donation. Research documents that people can cope with existential anxiety through various forms of consumption behavior (Arndt et al. 2004; Fransen et al. 2008; Rindfleisch and Burroughs 2004). For example, MS tends to increase materialistic and self-serving tendencies (Arndt et al. 2004; Kasser and Sheldon 2000; Mandel and Smeesters 2008; Sheldon and Kasser 2008). Work finds that, under MS, people prefer high-status and luxury items (Mandel and Heine 1999), amplify the value attributed to money (Zaleskiewicz et al. 2013), pay more for material goods (Dechesne et al. 2003), and create stronger brand connections when they are high in materialism (Rindfleisch, Burroughs, and Wong 2009). The convergent conclusion of these findings is that materialism (i.e., the relative importance a consumer places on the acquisition of material goods; Belk 1984; Richins and Dawson 1992) may be a predominant worldview in capitalist societies and that materialistic pursuits can reflect an individual's place as a worthy member of society (Kasser and Sheldon 2000; Mandel and Heine 1999). This body of literature would predict that consumers might actually decrease possession donation under conditions of MS.

Furthermore, other work has found negative effects of mortality reminders on prosocial behaviors. MS has been shown to lead to reduced compassion for people with disabilities (Hirschberger, Florian, and Mikulincer 2005), decreased giving to charities that reevoke the sense of mortality (Hirschberger, Ein-Dor, and Almakias 2008), and reduced donations to out-group members (Jonas et al. 2002, S2; Jonas, Sullivan, and Greenberg 2013, S1). This literature suggests that, while prosocial behavior may be a socially valued norm, it is not always the most salient norm in the given situation (Gailliot et al. 2008). Notably, even when a social norm is primed, one's individual values (e.g., valuing money or materialism) can override giving behavior (Jonas et al. 2013). Taking these literatures together, then, one reasonable prediction might be that MS should lead to consumers being less likely to give their possessions away.

Another stream of research, however, suggests that MS may actually lead to an *increase* in possession donation. According to the TMT view, engaging in prosocial behaviors can be a means of both fulfilling a cultural worldview and striving for self-esteem (Ferraro, Shiv, and Bettman 2005; Jonas et al. 2008; Solomon et al. 1991; see table 1 for details). For example, Jonas et al. (2002) revealed a "Scrooge Effect" wherein MS increased support for charities only when they were considered important to the participant's own worldview (i.e., participants supported an "American" in-group, rather than an international out-group). Joireman and Duell (2005, 2007) found that when being prosocial is a valued social norm, MS motivates people who are generally pro-self to more strongly endorse prosocial values and causes. Ferraro, Shiv, and Bettman (2005) showed that MS increased monetary donation only if the consumer considered virtuousness a source of self-esteem; this result suggests that donation served as a form of self-esteem enhancement to buffer the mortality threat. Thus, this literature suggests that MS can increase charitable intentions and actions, but only when the cause supports a relevant cultural worldview or buffers self-esteem (Ferraro et al. 2005; Hirschberger et al. 2008; Joireman and Duell 2005, 2007; Jonas et al. 2002; Zaleskiewicz, Gasiorowska, and Kesebir 2015). In sum, while some of the extant literature suggests that MS should decrease the tendency to give possessions away, other work indicates that mortality reminders might increase giving—specifically when giving is linked to a cultural worldview or a core value that is important to the self. The current work diverges from previous research on MS and prosocial

TABLE 1

PREVIOUS LITERATURE ON MORTALITY SALIENCE AND PROSOCIAL BEHAVIORS

Source	Focus of study	Findings	Hypothesized mechanism	Takeaway
Jonas et al. (2002)	MS should increase adherence to norms of prosocial behavior	MS led to higher evaluations of charities deemed important by participants (S1) as well as donation to in-group charities (S2)	Cultural Worldview (Norms)	MS increases prosocial giving only when the charity supports an in-group
Joireman and Duell (2005)	Social Value Orientations (proself vs. prosocial) moderate the effect shown in Jonas et al. (2002)	MS led proselfs to endorse more self-transcendent values (S1 and S2a). If justification is present to not change value orientation (S2a and S2b), the effect disappeared	Cultural Worldview (Norms)	MS leads only proselfs to more highly endorse self-transcendent values. Prosocials showed no change
Ferraro, Shiv, and Bettman (2005)	Sources of self-esteem moderate whether MS increases donation	MS led to higher donation only if acting virtuously was a source of self-esteem (S2)	Self-Esteem Enhancement	MS only increases donation if virtue is a source of self-esteem
Joireman and Duell (2007)	Individual differences in adherence to self-transcendent values (prosocial) moderate whether MS increases the evaluation of charities	MS led to greater evaluation of charities only for those who originally were low in adherence to self-transcendent values	Cultural Worldview (Norms)	MS only increases evaluation for those with low self-transcendent values
Jonas et al. (2008)	MS effects depend on which social norm is salient	MS led to higher prosocial attitudes only when a prosocial norm prime was salient (S1)	Cultural Worldview (Norms)	Salient social norms determine whether MS increases prosocial behavior
Hirschberger, Ein-Dor, and Almakias (2008)	Type of charitable cause moderated whether MS increased donation	MS led to higher donation only to charities that did not reevoke death awareness (charitable fund vs. organ donation; S1 and S2) and only increased helping of a nondisabled person (S3)	Cultural Worldview (Norms)	MS only increases donation to certain types of charities
Gailliot et al. (2008)	Norm salience moderates whether MS results in greater adherence to norms	MS led to increased willingness to help others in need, only when reminded of the social value of helping (S2 and S3)	Cultural Worldview (Norms)	MS effects depend on whether norm of helping is salient
Wade-Benzoni et al. (2012)	MS shifts donation focus to future recipients	MS led to increased donation to charities that focused on future benefits rather than present benefits (S1). Effect due to enhanced feelings of connection (S2)	Symbolic Immortality (Legacy Motive—Transcendence?)	MS shifts intertemporal focus in terms of financial concerns
Jonas, Sullivan, and Greenberg (2013)	MS effects on donation depend on both salient cultural and personal norms and values	MS led to lower donation to foreign charities (S1). Effect reversed when reminded of generosity norm (S2). For those that valued money, MS led to lower donation (S2)	Cultural Worldview (Norms)	MS does not increase donation generally. Instead, donation depends on salient norms (both social and personal)
Zaleskiewicz, Gasiorowska, and Kesebir (2015)	MS increases desire for and satisfaction derived from prosocial behavior	MS led to more generous allocation of resources in a dictator game (S1) and an ultimatum game (S2), as well as greater satisfaction derived from giving	Cultural Worldview (Norms)	MS can increase desire for prosocial behavior
Cai and Wyer (2015)	MS influences the effectiveness of different types of advertisement appeals (need focused vs. bandwagon)	MS led to increased effectiveness of bandwagon appeals—greater intention (S1) and actual donation (S2). Effect due to perceived social desirability (S3 and S4)	Cultural Worldview (Norms/Social Desirability)	MS increased adherence to socially desirable norms and can change effectiveness of appeals
Present research	MS increases donation when donation allows for self-transcendence through a tangible possession	MS leads to increased donation of items that are linked to the self (vs. not). Effects due to intention (S1, S3, and S4), actual donation (S2), but only when need for transcendence was not satiated (S4) and when the product is donated intact (vs. broken down and recycled)	Self-Transcendence	MS increases donation when transcendence potential is high

behavior to focus on how transcendence through a tangible product might be a driver of possession donation.

Transcendence and Symbolic Immortality

Transcendence refers to a sense that one is part of something greater than the self. Stemming from the work of Maslow (1969), transcendence is the break between the conception of self as an isolated entity and an allowance for connection between the self and entities that exist beyond the self (e.g., seeing the self as extended to other people, nature, the future; Lifton 1973; Yaden et al. 2017). Thus, transcendence allows the self-concept to extend beyond the physical self (Koltko-Rivera 2006; Maslow 1969) in ways that can bestow symbolic immortality (Lifton 1973; Lifton and Olson 1974). Symbolic immortality refers to the notion that humans seek an existence beyond their own lifetime, which can be achieved by creating meaningful works and legacies that contribute to a sense of personal continuity.

Lifton (1979) proposed five means of achieving symbolic immortality. The first mode is biological, wherein having children allows one to achieve a sense of continuity past death. Indeed, MS increases the desire for offspring (Wisman and Goldenberg 2005) and having offspring can buffer against death anxiety (Fritsche et al. 2007). The second mode is creative/intellectual achievement, which suggests that one's creative works or teachings can allow one to symbolically live on in society (e.g., Hirschman 1990). The third mode is centered in one's attunement with the greater natural world. The fourth pertains to spiritual and religious attainment, such as searching for a higher plane of existence (Norenzayan and Hansen 2006). Finally, the experiential mode refers to the ability to lose oneself in experiences, which manifests as a feeling of being fully alive. Symbolic immortality can be measured as an individual difference (Mathews and Mister 1988), and those with a higher sense of symbolic immortality have been shown to be less likely to report death anxiety (Florian and Mikulincer 1997). In the current research, we look at how transcendence can be achieved through a unique form of symbolic immortality—linking one's identity to a possession, an act that consumers engage in naturally (Belk 1988). Importantly, we argue that the act of giving[1] a self-connected possession allows one to fulfill desire for transcendence and achieve symbolic immortality.

1 It could be argued that the act of giving is simply a form of prosocial behavior, which should satiate symbolic immortality (because prosocial behavior is a lauded cultural worldview). Mathews and Kling (1988) examined the correlation between the modes of symbolic immortality (i.e., biological, connection to nature, creative) and certain types of prosocial behavior (i.e., helping family, helping strangers). This work found little to no correlation between modes of symbolic immortality and prosocial behavior (aside from nature being correlated with all types of measured prosocial behavior).

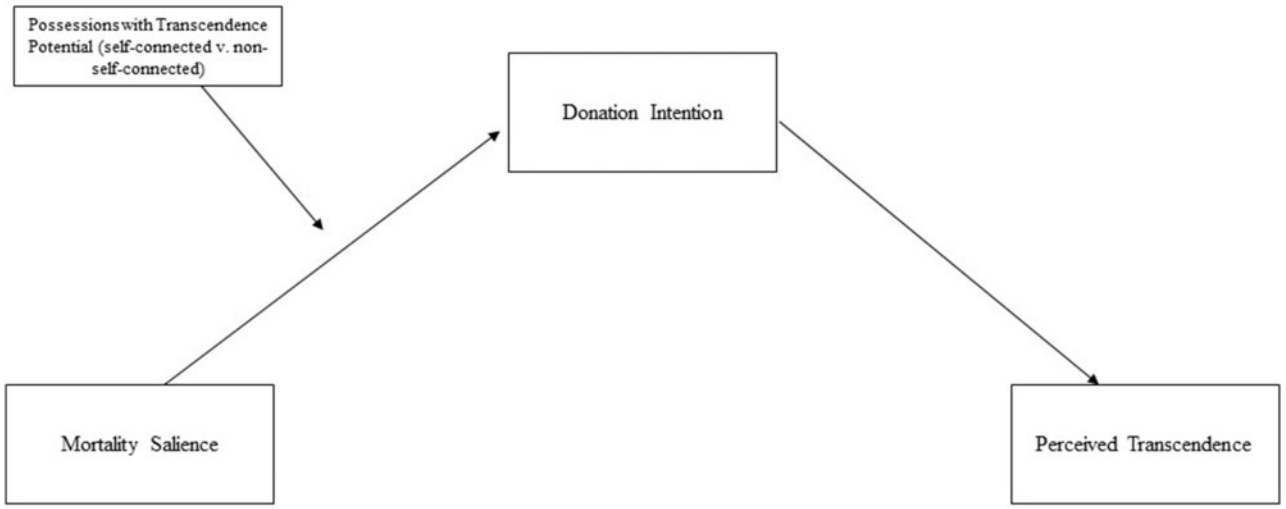
Achieving Symbolic Immortality through the Extended Self

At its core, TMT explores the means via which human beings might achieve symbolic immortality. By examining self-protective reactions like cultural worldview defense, TMT suggests that one can become symbolically immortal by being a good member of a society that represents something valued that is greater and more expansive than the individual. We build on the notion of symbolic immortality as it is often framed in TMT research by proposing that consumers might fulfill a desire for transcendence in a different way—by giving away possessions that are highly connected to the individual self (Ball and Tasaki 1992; Belk 1988; Ferraro et al. 2011). This distinction is important. Past work has found that MS influences prosocial behavior because being prosocial is a lauded value in Western society. Therefore, by engaging in prosocial behavior, people are defending a worldview—a form of symbolic immortality linked directly to a greater society. In the current research, we study a unique form of symbolic immortality that is focused on the individual self rather than the broader society. In particular, we suggest that extending the self to a tangible possession and giving this away might be one means of attaining transcendence—it can allow a piece of the self to symbolically transcend the self and be passed along after one's death. In this way, the individual can achieve a sense of symbolic immortality through identity transference to a tangible good. Our conceptual framework proposes that morality salience increases a desire for transcendence, which encourages the donation of possessions that allow for symbolic immortality (e.g., connected v. not connected to the self). This donation, in turn, increases the perception that one has achieved transcendence (satiating one's desire for transcendence; see figure 1).

Whereas, to our knowledge, no work has tested this proposition, research has proposed that one way to maintain connections to the deceased is through "... symbolic representations which imbue material possessions with the spirit of the deceased" (Schuchter and Zisook 1988, 269). Moreover, reminders of death, especially for older individuals, can initiate legacy concerns wherein they begin to assemble a curation of their identity (Price, Arnould, and Curasi 2000) and think about how their possessions will carry on after death (Gentry, Baker, and Kraft 1995; Kopytoff 1986). Building on this work on symbolic immortality, and contrary to prior research indicating that MS would lead consumers to be less likely to part with possessions (Arndt et al. 2004; Rindfleisch and Burroughs 2004; Rindfleisch et al. 2009), we propose that MS will increase the giving of possessions to others. This is purported to occur only under conditions where the possession is connected to the self, because this is when transcendence is possible (i.e., a piece of the self can symbolically be transferred to others by giving the item away). More formally:

FIGURE 1

CONCEPTUAL FRAMEWORK



H1a: When the possession is highly connected to the self, those experiencing mortality salience will exhibit higher possession donation intentions and behaviors compared to those not experiencing mortality salience.

H1b: When the possession is not highly connected to the self, there will be no differences in possession donation intentions and behaviors for those experiencing mortality salience compared to those not experiencing mortality salience.

The Role of Transcendence

Our core proposition is that MS heightens the desire for transcendence. This desire can be satiated through an increase in possession donation only when the act of giving makes transcendence possible. Specifically, we suggest that, in the context of possession donation, a heightened connection between the possession and the self (e.g., signing a name, writing an inscription, giving a special or self-connected possession) increases the transcendence potential of the giving act. In other words, by creating a symbolic link between the self and the possession, one allows a piece of the self to be passed on to another through the item. Thus, the act of giving satiates the desire for transcendence, which manifests as a greater perceived transcendence following the act of donation. We test this proposed mechanism using three distinct approaches. First, we seek to validate the role of transcendence by showing that those consumers experiencing MS subsequently report higher feelings of perceived transcendence, but only when they choose to donate self-connected possessions. In other words, the act of donation should satiate the desire for transcendence, leading to increased feelings of perceived transcendence, but only for self-connected items. It follows:

H2: Donation intentions will mediate the interactive relationship of mortality salience and possession type on perceived transcendence, such that only donation of self-connected possessions should result in higher donation intentions and perceived transcendence.

Second, we use a moderation approach (Spencer, Zanna, and Fong 2005) to demonstrate that transcendence is the underlying mechanism. Importantly, past work on transcendence through symbolic immortality suggests that there are other approaches through which individuals can achieve transcendence (e.g., Fritsche et al. 2007; Mikulincer, Florian, and Hirschberger 2003). We draw on this work to propose that when an individual resolves the desire for transcendence in an alternate way, we should see a mitigation of the observed effects. For example, if a person is able to join a community group that will continue on after their death, this may fulfill the desire for transcendence (Routledge and Arndt 2008) and mitigate the tendency to give away possessions that are connected to the self. Thus, we predict that when the desire for transcendence has already been satiated through other means, possession donation will no longer be needed to satisfy desire for transcendence. In other words:

H3: When transcendence is achieved through other means, differences in possession donation for those experiencing mortality salience (vs. those not experiencing mortality salience) will be mitigated.

Finally, we use a moderation approach to test whether the physical integrity of the possession is fundamental in defining whether the product will transcend and be passed on to others. Here, we predict that the possession needs to maintain its physical integrity (i.e., it must remain intact as a whole) to allow for transcendence via donation. If the possession is broken down and recycled as part of the donation act, the self-connection that is fundamental to transcendence being realized could possibly be lost. While to the best of our knowledge, this idea has not been empirically tested, some research is suggestive in this regard. Work on gestalt perception indicates that an object seen as a "whole" is greater than the sum of its parts and can thus lose holistic meaning and value when separated into parts (Koffka 1935; Köhler 1970; Shaddy and Fishbach 2017). Other work has shown that identity connected possessions are more likely to be disposed of in a way that extends the product's life cycle (e.g., Trudel et al. 2016). Drawing on this work, we suggest that, under conditions of MS, the loss of physical integrity of a donated possession will diminish its transcendence potential (i.e., it will no longer have an ability to act as a symbolic carrier of the self) and thereby decrease donation intentions. More formally:

> **H4:** When the self-connected possession loses its physical integrity by being broken down, differences in possession donation for those experiencing mortality salience (vs. those not experiencing mortality salience) will be mitigated.

The Current Research

Across five studies, we test the proposition that MS is most likely to lead to donation when a possession is closely connected to the self (i.e., transcendence is possible). In study 1, we vary whether people are asked to attach their identity to an owned product through signing (or not signing) a book. We find that under MS (vs. a comparison condition), actual donation behavior increases when the self is transferred to the possession through signing. Then, in study 2, we provide evidence that MS (vs. a comparison condition) increases a desire for transcendence by showing that people are more likely to voluntarily attach their name to a donation under MS (vs. a comparison condition). In study 3, we show that individuals report a greater willingness to give possessions to charity in response to MS (vs. a comparison condition) when their possessions are connected (vs. not connected) to their own identity. Furthermore, we validate that under conditions of MS, the decision to donate a self-connected possession results in feelings of transcendence. In study 4, we show that when transcendence can be achieved through other means (and the desire for transcendence is thereby met), giving behavior under MS is mitigated. Study 5 confirms that the effect of MS on donation behavior is eliminated when the donated possession no longer allows for transcendence (i.e., the product loses its physical integrity by being broken down and recycled).

STUDY 1: MS AND REAL DONATION BEHAVIOR

Study 1 sought to explore the main premise of our conceptual framework, which predicts that under conditions where self-transcendence is possible (such as when the item is connected to the self), MS will lead to increased donation compared to a non-MS condition (hypothesis 1a). When the product is not connected to the self, no differences in possession donation should emerge between those in the mortality and comparison conditions (hypothesis 1b). This provides a stringent test of our theory, because one might assume that the baseline response of consumers would be to give away nonself-connected products over self-connected products (Gawronski, Bodenhausen, and Becker 2007; Morewedge et al. 2009).

We wanted to examine a consequential donation context in which participants were asked to bring a book to the laboratory and then were given the opportunity to donate the book to a local charity if they wished. First, participants either completed a task to activate thoughts of mortality or completed a control task. Before considering donation, participants were asked to either connect their identity to the product (or not) by signing (or not signing) the book. Past research suggests that signing one's name primes self-identity (Kettle and Häubl 2011) and increases felt identity connection to a given product (Trudel et al. 2016). The key dependent measures were donation intentions and actual donation behavior.

Method

Participants and Design. Participants took part in a 2 (experience: MS vs. control [typical day]) × 2 (self-connection act: signing vs. no signing) between-subjects design. This study was carried out over two semesters at a large North American university.[2] Due to the critical nature of bringing an owned product (i.e., a book) to the experiment, only participants who brought a book for potential donation to the laboratory qualified to take part in the study. In terms of sample size selection for all studies, we aimed for 120–130 participants per cell, after any exclusions. Six hundred nine participants were recruited in

2 To ensure that we identified an appropriately powered sample, we collected data across two semesters. All data were analyzed as a combined data set. To ensure that there was no difference between the two data-collection waves, a binary logistic regression on donation choice was run using experience, self-connected possession, time condition (time 1 vs. time 2), and their interactions as independent variables. Importantly, there was no significant three-way interaction of experience, self-connected possession, and time condition. This suggests that our focal effect did not vary across time periods (for all analyses, see web appendix A).

exchange for course credit. Across all studies, participants were selected for analysis if they completed the study in its entirety. Specifically, participants were removed if a key variable was missing, if they failed to complete the manipulations (i.e., did not write in the prompts, copied/pasted the prompt, did not consider an important possession/did not inscribe the book, wrote nonsense), or if they failed the attention checks (i.e., failed to recall the life experience written about, failed to recall the type of item prompted about, failed to recall if they were asked to bring/write in the book, failed to recall the charity). These are the criteria for participant removal in all studies and preregistered in two of our studies. In this study, 97 participants were removed using these criteria and the final sample consisted of 512 participants (35.2% males, 64.6% females, 0.2% no answer; ages 17–67 years, $M = 21.01$, SD = 5.44).

Procedure. Participants were emailed ahead of time and advised that one of the studies would be about their donation behavior, and they should bring a book that they might be willing to donate, but that the decision would be up to them. Upon arrival at the lab, participants were told that they would be completing three unrelated studies. Each participant completed the series of studies in a private room to ensure anonymity of their donation choice. As a part of the so-called first study, participants were randomly assigned to write about one of the two different life experiences: *MS* or a *control* (*typical day*). In the *MS* condition, participants were asked: "Take a moment to think about your own death. Imagine what your death might be like as vividly as you can. Then, in the space provided, please describe the emotions that your own death creates in you." They were also asked "what you think might happen when you physically die?" In the *typical day* condition, participants were requested: "Take a moment to think about a typical day in your life. Imagine what your day-to-day life looks like as vividly as you can." They were also asked, "What do you think might happen during your typical day?" (web appendix B).

In the second study, participants were asked to complete a filler task. Prior work has suggested that people respond to death in two different ways. The proximal response is to deny the threat. However, over time, MS can lead to distal responses, or behaviors that restore resilience or protect the consumer from existential threat (Greenberg et al. 1994). Thus, following past research (Goldenberg et al. 2000), we included a filler task between MS and the response behaviors. This filler task consisted of a short (and neutral) crossword puzzle wherein the participants determined the correct name for various baby animals.

In what was allegedly the final study, participants were told that the marketing department was collecting book donations for a local charity called "Books for All!" They were told that "Books for All!" is a nonprofit organization that collects books to help underprivileged families build their home libraries. In the *no signing* condition, after reading this introduction, participants were immediately asked to decide whether they would like to donate their book or not. If they chose to donate, they would then place their book into a labeled box located within each individual breakout room. This allowed their donation to be private and to avoid any impression-management concerns. In addition, each box always had four books already in it, so it was not immediately obvious if the previous participant had donated or not. In the *signing* condition, after reading about the program, participants were told that they should write a brief inscription and sign the book. They then chose whether they would donate the book. This signing manipulation was pretested to ensure that signing successfully led to an identity connection with the product (see web appendix C for full details). In addition to the actual donation decision, participants were asked their likelihood of book donation ("How likely are you to donate the book?" on a 7-point scale, 1 = not at all likely, 7 = very likely). Participants were then asked to answer demographic questions and thanked for their time. Across all studies, demographic measures did not predict (or interact with other independent variables to predict) any of the dependent measures and are not discussed further.

Results

Donation Intentions. An ANOVA using experience and self-connection as independent variables and donation intentions as the dependent variable revealed no main effect for experience ($F(1,508) = 0.032$, $p = .859$), no main effect of self-connection act ($F(1, 508) = 1.369$, $p = .242$), and a significant interaction ($F(1, 508) = 8.047$, $p = .005$). Supporting hypothesis 1a, in the self-connected condition, participants who experienced MS were significantly more likely to donate than those in the control condition ($M_{\text{mortality}} = 4.28$, SD = 2.41, $M_{\text{control}} = 3.67$, SD = 2.28, $t(508) = 2.10$, $p = .037$). Supporting hypothesis 1b, in the nonself-connected condition, a marginal reversal in donation intentions emerged ($M_{\text{mortality}} = 3.47$, SD = 2.27, $M_{\text{control}} = 4.01$, SD = 2.32, $t(508) = 1.91$, $p = .056$). In addition, participants in the mortality-salience condition were significantly more inclined to donate the book in the self-connected condition versus the nonself-connected condition ($t(508) = 2.83$, $p = .005$; figure 2).

Actual Donation. As an initial test of the behavioral-choice variable, we compared donation behavior in the MS/self-connection condition to the other experimental conditions. A dummy variable was created (1 = MS + sign, 0 = MS + no sign, control + sign, and control + no sign), and a chi-square analysis was run on donation choice. Supporting our predictions, results revealed that

FIGURE 2

DONATION INTENTIONS AS A FUNCTION OF EXPERIENCE AND SELF-CONNECTION ACT

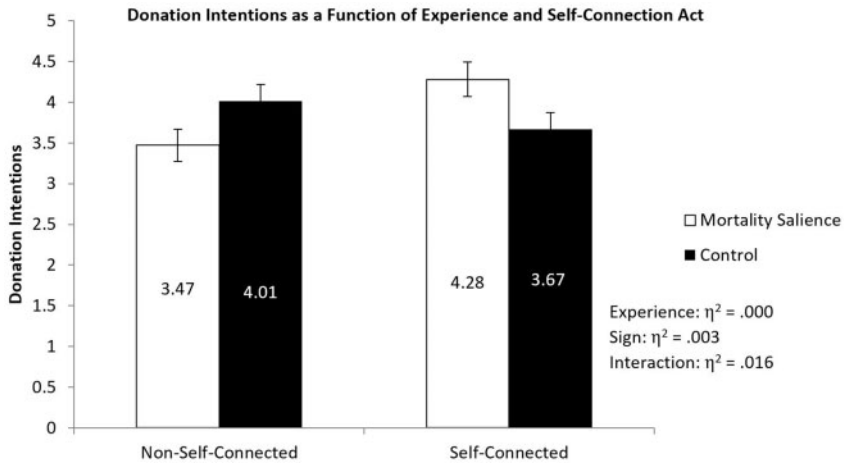
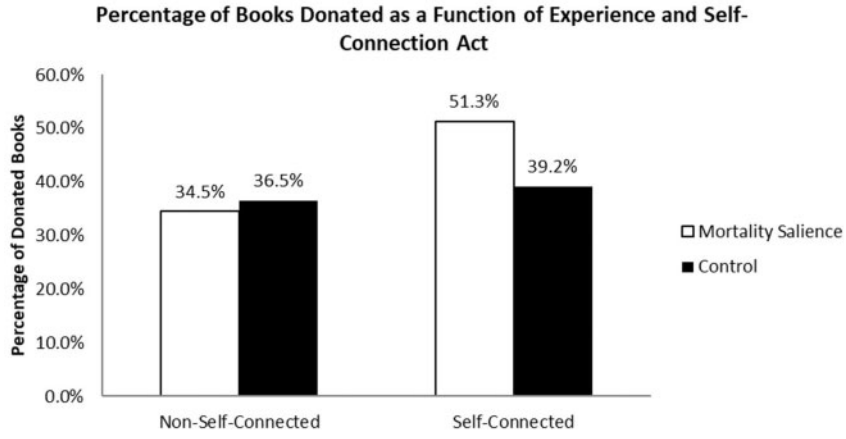


FIGURE 3

PERCENTAGE OF BOOKS DONATED AS A FUNCTION OF EXPERIENCE AND SELF-CONNECTION ACT



participants in the MS/self-connection group were significantly more likely to donate their possession compared to other conditions ($\chi^2 = 7.99$, $p = .005$; see figure 3).

To supplement our initial analysis, we conducted a binary logistic regression utilizing donation (0 = No, 1 = Yes) as the dependent variable and using the contrast-coded experience condition (−1 = MS, 1 = "typical day" control), self-connection (−1 = no sign, 1 = sign), and the interaction term as independent variables. The results revealed a nonsignificant effect of experience ($B = -0.101$, Wald(1) = 1.223, $p = .269$), a significant effect of self-connection ($B = 0.202$, Wald(1) = 4.91, $p = .027$), and a directional interaction between experience and self-connection ($B = -0.144$, Wald(1) = 2.50, $p = .114$). Again, supporting hypothesis 1a, those in the self-connection condition were more likely to donate the book if they had written about mortality-salience (51.3%) than if they had written about a "typical day" (39.2%; $Z = 1.90$, $p = .05$). In the nonself-connected condition, however, there was no difference in donation as a function of experience (MS = 34.5%, control = 36.5%, $Z = .336$, $p = .728$), supporting hypothesis 1b. In addition, when in the self-connection condition, those in the mortality-salience condition were more likely to donate the book (51.3%)

compared to those in the nonself-connected condition (34.5%; $Z = 2.70$, $p = .007$).

Discussion

Study 1 provides preliminary evidence that, for those who felt a sense of connection to the possession (i.e., via signing the book), donation intentions and behaviors increased in response to MS (compared to the neutral experience condition). However, when there was a reduced connection between the consumer and the possession (i.e., no signing), significant differences in donation were not observed between the mortality-salience and control conditions. Thus, this study provides initial support for the notion that the donation of self-connected possessions is increased under conditions of MS.

One potential alternative explanation for the effects is that the act of signing the book increased the participant's commitment to following through with the donation. However, while this would explain a main effect for self-connection, it would not explain our observed interaction effect. In fact, when looking at the donation intentions measure under conditions of no MS, signing seemed to marginally increase the commitment to keep the book rather than give it away. To control for the potential for writing to lead to increased commitment to the act of donation, study 2 holds the decision to donate consistent across experience conditions and asks only that participants choose between the decision to donate without an inscription or with an inscription. In addition, participants in study 2 do not go through the actual act of writing an inscription; thus, there is no potential for increased commitment after an act of writing.

STUDY 2: MS AND DESIRE FOR TRANSCENDENCE

Study 1 explored the notion that under conditions where the possession is connected to the self, consumers are more likely to donate the possession when under MS (vs. comparison conditions). Our conceptual framework suggests that this effect is driven by an increased desire for transcendence. In study 2, we test our conceptualization in a different way. If our proposition that MS leads consumers to desire to give away products in ways that allow for transcendence is correct, we should see that consumers will be more likely to connect the self to the possession by choosing to donate with an inscription (vs. without an inscription) under MS (vs. a control condition).

In addition, study 2 seeks to cast doubt on the notion that self-esteem is an underlying driver of the observed effects. Past TMT research has demonstrated that trait self-esteem often moderates mortality-salience effects, such that those lower in self-esteem show stronger self-esteem reaffirming responses to mortality reminders (Arndt and Greenberg 1999; Greenberg et al. 1992; Harmon-Jones et al. 1997). If self-esteem is driving our effects, then we would expect to find that self-esteem predicts donation mode of choice or moderates the effect of MS on donation choice.

Method

Participants and Design. This study utilized a two-level, one-way experimental between-participants design in which participants were randomly assigned to write about MS or their typical day (control condition).[3] This study was preregistered with clear exclusion criteria and an analysis plan.[4] Five hundred one participants were recruited from Amazon Mechanical Turk in exchange for monetary compensation. Of these participants, 91 were removed from final analyses using the selection criteria maintained throughout each study within this article. Thus, the analyses were run on 410 participants (40.7% males and 57.8% females, 0.4% prefer not to answer; ages 20–75 years, $M = 37.76$, SD = 11.61).

Procedure. Participants completed either the mortality-salience or the control task as in study 1. They were then told that they would read about a charitable organization. Prior to reading about the charity, all participants were asked to think about a possession that was self-connected in some way: "We all own products or items that play a role in our lives. Some of these products are items that you would consider close to your *sense of self*. We'd like you to think about one specific item that is *meaningful to you and close to your sense of self, but that you no longer use*. However, this item is something that could still be of use to someone else (e.g., an item of clothing that you no longer wear, an item from when your child was younger, a household good, a book). The item should not be of high monetary value (i.e., it should be $50 or less), just something that has some *special meaning to you or is close to your sense of self* that you would consider donating." Participants wrote a brief description about what this item was before moving on. Next, participants read that the United Way was engaging in a goods drive in which they were collecting possessions as donations. Participants learned that as part of this charitable drive, those who donated would be given the opportunity to write a short, signed message on a donation nameplate for the next owners (web appendix D). Participants were then asked to recall the possession they thought about earlier. They were told to assume that they would be donating the possession, but to choose if they would like to donate it with or without

3 To ensure empirical integrity, a replication of this study is presented in web appendix E. The replication was successful.

4 Preregistered at Aspredicted.org: https://aspredicted.org/blind.php?x=3x3ap5.

the inscription message. This dichotomous choice served as our dependent variable.

We cast doubt on self-esteem as an alternative explanation for our observed effects both in this study and a follow-up to study 3. In the current study, we attempt to rule out self-esteem by having participants complete a 4-item version of the 10-item Rosenberg (1965) trait self-esteem scale ($\alpha = .86$; I feel satisfied with myself, I think I am no good at all (r), I feel like I do not have much to be proud of (r), and I feel pretty positive about myself, 1 = strongly disagree, 7 = strongly agree); this followed collection of the demographic variables. We note that there was no effect of the mortality-salience condition on self-esteem ($F(1, 408) = 1.94$, $p = .164$).

Results

Binary logistic regression revealed a significant effect of experience on choice ($\chi^2 = 4.86$, $p = .027$). As predicted, those in the mortality-salience condition were significantly more likely to donate the possession with an inscription versus no inscription (58.05%) than were those in the "typical day" control condition (41.95%; $Z = 3.00$, $p = .003$). In addition, we examined the potential moderating role of trait self-esteem by conducting a binary logistic regression using donation as the dependent variable and the experience condition, mean-centered trait self-esteem, and the interaction term as independent variables. The results revealed a significant effect of experience ($B = 0.215$, Wald(1) = 4.522, $p = .033$), no effect of trait self-esteem ($B = -0.092$, Wald(1) = .088, $p = .297$), and no significant interaction ($B = -0.021$, Wald(1) = .057, $p = .812$).

Discussion

Study 2 provided additional evidence for hypotheses 1a and 1b: that MS increases donation behaviors that allow for transcendence (enabled by an increased connection between the self and the possession). In particular, we find that participants under MS are more likely to donate possessions with an inscription that connects the product to the self, compared to those who recalled and considered a more neutral experience. Study 2 also provides evidence to rule out the alternative explanation that self-esteem is the driver of the observed effects. In this study, we find that trait self-esteem was not shown to predict the donation-mode choice or moderate the effect of experience on donation choice. If self-esteem was the main driver of our effects, one would expect the effects to be heightened among those who are lower in trait self-esteem (Harmon-Jones et al. 1997). The lack of interaction between self-esteem and MS in this study casts doubt on the possibility that self-esteem is a factor in the observed effect. The result that consumers under MS are more likely to donate in ways that connect the self to the product, however, does add to the converging evidence that consumers may donate possessions that allow for transcendence. In study 3, we seek to replicate our findings by using a possession that is inherently connected to the self, as well as testing whether the act of donation subsequently results in greater perceived transcendence (i.e., a measure of transcendence satiation). A follow-up to study 3 also aims to provide more evidence that self-esteem is not a viable explanation for the observed effects.

STUDY 3: MS AND DONATION INTENTIONS

In study 3, we seek to replicate study 1's results while using a different type of self-connection manipulation (i.e., giving of possessions that either have inherent self-connection meaning or not). In addition, we use social exclusion as a comparison condition because it has been shown to be a threatening experience leading to negative moods, without activating thoughts of mortality (Shim and White 2020). Past work on social exclusion through rejection (as is prompted in the current manipulation) suggests that rejection threatens self-esteem and belongingness. In some cases, such self-esteem threats can increase prosocial behaviors like donating money to charity (Lee and Shrum 2012). However, previous work has not examined product donation under social rejection.

Interestingly, there is work suggesting that social rejection may lead to greater possession retention and thus lower donation likelihood. Indeed, possessions can take on special meaning and can symbolically represent reminders of past relationships or identity connection (Ball and Tasaki 1992; Belk 1988; Ferraro et al. 2011; Winterich et al. 2017). Thus, if social exclusion threatens one's sense of belongingness, keeping possessions that have special meaning or identity connection may help consumers maintain a connection to past relationships. Similarly, if social exclusion acts as a simple self-esteem threat, there may also be a tendency to retain items once they are owned (Dommer and Swaminathan 2013). This is because people increase the value of their possessions as a way of indirectly enhancing the self (Beggan 1992). We expect that, unlike previous work on prosocial behavior after exclusion, social exclusion will lead to a lower likelihood to donate possessions. Thus, in this study, we use social exclusion as a relevant comparison condition in the context of possession donations.

Method

Participants and Design. Five hundred fifteen participants were recruited from Amazon Mechanical Turk in exchange for monetary compensation. Participants took part in a 2 (experience: MS vs. social exclusion) × 2 (possession type: self-connected vs. nonself-connected) between-

subjects design. Of these participants, 77 were removed using our prior selection criteria (discussed in study 1). Therefore, analysis was run on 438 participants (37.7% males, 61.9% females, 0.4% prefer not to answer; $M = 37.49$, SD = 11.95).

Procedure. First, participants were randomly assigned to write about one of the two possession types. In the *self-connected possession* condition, participants were told to think about a possession that they consider close to their sense of self—a possession that is meaningful to them but that they no longer use (using the same wording as study 2). In the *nonself-connected possession* condition, participants were told to think about a possession that is unrelated to their sense of self—a mundane, everyday, or utilitarian item that they no longer use: "We all own products or items that play a role in our lives. Some of these products are items that you would consider *unrelated* to your sense of self. We'd like you to think about one specific item that is a *mundane, everyday, or utilitarian item that you no longer use*. However, this item is something that could still be of use to someone else (e.g., an item of clothing that you no longer wear, a household good, a book). The item should not be of high monetary value (i.e., should be $50 or less), just something that has *NO special meaning to you and should be unrelated to your sense of self* that you would consider donating" (see web appendix F). Participants were told to think about the item and then describe it briefly in writing.

Participants then completed manipulation check items regarding how connected they felt to the possession (7-point scale from strongly disagree to strongly agree; *this item says something about me*, *this item is sentimental*, *this item has meaning for me*). Next, participants were randomly assigned to write about one of the two life experiences: MS or social exclusion, adapted from past work (Arndt et al. 2002; Shim and White 2020) and was pretested to ensure that MS and social exclusion were elicited effectively (web appendix G). In the *MS* condition, participants saw the same prompt as in study 1. In the *social exclusion* condition, participants were asked to "Take a moment to think about being socially excluded from an event. Imagine what this event might be like as vividly as you can. Then, in the space provided, please describe the emotions that the thought of being purposefully excluded/left out of an important social/group event creates for you," and "What do you think might happen when you are purposefully excluded from an event?"

Participants then completed a short filler task and continued to what was ostensibly the next study. All participants read a short description about The United Way and were told that the charity is running a donation drive, with the closest donation drop center about 2 hours from their current location. This time commitment was included to make the donation decision something that would involve a fair degree of time and effort for the consumer. Participants were then asked to report their donation intentions for their previously identified possession on three 7-point scales: *not likely to donate/likely to donate*, *not willing to donate/willing to donate*, and *not inclined to donate/very inclined to donate*. Next, to test whether the desire for transcendence may be fulfilled through the act of donating a self-connected possession under MS, participants reported the degree to which they would feel perceived transcendence as a result of their donation choice: *I feel like a part of me will live on forever*, *I feel like I will be remembered*, *I know someone will always have a piece of me even after I'm gone*, and *I feel like I am making a lasting contribution to the community* (1 = strongly disagree, 7 = strongly agree). Finally, participants were asked to respond to demographic items and were compensated for their time.

Results

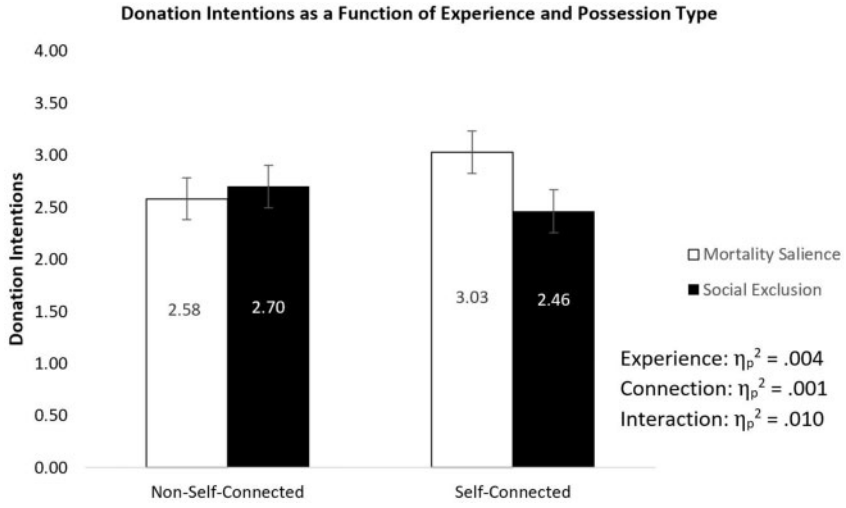
Possession Type Manipulation Check. The connectedness items were averaged to create a product-connectedness index ($\alpha = .95$). An ANOVA with experience and possession type as independent variables and connectedness as the dependent variable revealed only a significant main effect of possession type ($F(1, 434) = 1{,}163.35$, $p < .001$, all other ps $> .38$). Participants who wrote about the self-connected possession rated the item as more connected to the self ($M = 5.90$, SD = 1.00) than did those who wrote about the nonself-connected possession ($M = 2.17$, SD = 1.27). Thus, our item manipulation of possession type was successful.

Donation Intentions. The donation intention items were averaged to create a donation intentions index ($\alpha = .88$). An ANOVA with experience and possession type as the independent variables and donation intentions as the dependent variable revealed no main effect of experience ($F(1, 434) = 1.80$, $p = .180$), no main effect of possession type ($F(1, 434) = 0.395$, $p = .530$), and a significant interaction ($F(1, 434) = 4.179$, $p = .042$, figure 4). Supporting hypothesis 1a, when the possession was self-connected, participants in the mortality-salience condition were significantly more likely to donate ($M = 3.03$, SD = 1.93) than those in the social exclusion condition ($M = 2.46$, SD = 1.67, $t(434) = 2.42$, $p = .016$). In the nonself-connected condition, no difference emerged as a function of experience ($M_{\text{mortality}} = 2.58$, SD = 1.69, $M_{\text{social exclusion}} = 2.70$, SD = 1.78, $t(434) = .490$, $p = .624$). Moreover, participants in the mortality-salience condition were also significantly more likely to donate when the item was self-connected than when the item was nonself-connected ($t(434) = 1.94$, $p = .053$).

Perceived Transcendence. The transcendence items were averaged to create a transcendence index ($\alpha = .92$).

FIGURE 4

POSSESSION DONATION INTENTIONS AS A FUNCTION OF EXPERIENCE AND POSSESSION TYPE



An ANOVA with experience and possession type as the independent variables and transcendence as the dependent variable revealed a main effect of experience ($F(1, 434) = 11.91$, $p = .001$), no main effect of self-connected possession type ($F(1, 434) = 0.499$, $p = .480$), and a marginally significant interaction ($F(1, 434) = 3.14$, $p = .077$). Importantly, those who thought about the self-connected possession felt significantly greater transcendence in the mortality-salience condition ($M = 4.15$, SD = 1.56) than in the social exclusion condition ($M = 3.33$, SD = 1.49; $t(434) = 3.74$, $p < .001$). In the nonself-connected condition, there were no differences in perceived transcendence as a function of recalled experience ($M_{\text{mortality}} = 3.76$, SD = 1.87, $M_{\text{social exclusion}} = 3.50$, SD = 1.61, $t(434) = 1.17$, $p = .241$). Participants in the mortality-salience condition felt moderately more transcendence when the item was self-connected versus nonself-connected ($t(434) = 1.80$, $p = .07$).

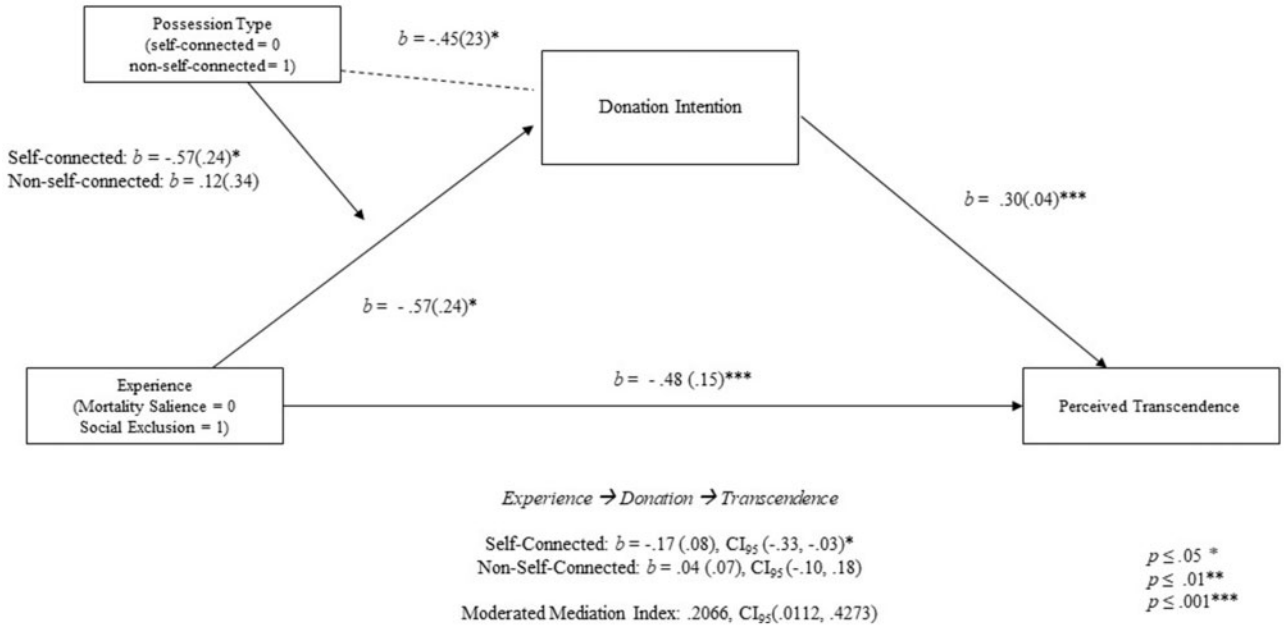
Moderated Mediation. To test whether an act of donation would satiate desire for transcendence, thus resulting in greater perceived transcendence, we ran a test of moderated mediation. Specifically, we ran Process model 7 with 10,000 bootstrap samples using experience as the predictor variable, possession type as the moderator, donation intention as the mediator, and perceived transcendence as the dependent variable (see figure 5). Supporting hypothesis 2, the results revealed a main effect of experience on donation intentions ($b = -0.57$, SE = 0.24, $p = .016$, CI95 [−1.04, −0.11]), a main effect of possession type on donation intentions ($b = -0.45$, SE = 0.23, $p = .05$, CI95 [−0.91, 0.006]), and a significant interaction between experience and possession type on donation intentions ($b = 0.69$, SE = 0.34, $p = .04$, CI95 [0.03, 1.36]). Importantly, the effect of experience on donation intentions was predicted by self-connected possessions ($b = -0.57$, SE = 0.24, $p = .016$, CI95 [−1.04, −0.11]) but did not emerge for nonself-connected possessions ($b = 0.12$, SE = 0.24, $p = .62$). In addition, there were a main effect of experience on perceived transcendence ($b = -0.48$, SE = 0.15, $p = .002$, CI95 [−0.77, −0.18]) and a main effect of donation on perceived transcendence ($b = 0.30$, SE = 0.04, $p < .001$, CI95 [0.22, 0.378]). There was a significant moderated-mediation index (index = 0.21, CI95 [0.01, 0.43]). Importantly, consistent with predictions, donation intentions mediated the relationship between experience on perceived transcendence but only for self-connected items ($b = -0.17$, SE = 0.08, CI95 [−0.34, −0.03]), not for nonself-connected items ($b = 0.04$, SE = 0.07, CI95 [−0.10, 0.18]). In other words, the desire for transcendence was satiated only when possessions high in self-connection were donated after experiencing MS.

Discussion

Study 3 provided further support for hypotheses 1a and 1b by showing that, when participants considered a self-connected possession, MS (vs. social exclusion) resulted in significantly higher possession donation intentions. When participants considered a nonself-connected possession, no differences in donation intentions emerged across the MS and social exclusion conditions. Furthermore, our results provide evidence that MS may have activated a desire for transcendence, which once satiated, resulted in greater perceived transcendence. Supporting hypothesis 2, we found

FIGURE 5

MODERATED MEDIATION



that under MS, those people who chose to donate experienced greater perceived transcendence, but only when possessions were highly connected to the self. Thus, those experiencing MS showed greater donation intentions for the self-connected item, which led to greater perceived transcendence.

One alternative explanation for the effects is that giving away possessions results in greater self-esteem, which is a buffer against MS. We sought to test the notion that transcendence (but not self-esteem) increases as a result of donating a self-connected possession when experiencing MS. We conducted a follow-up study with 100 participants gathered from Amazon Mechanical Turk, 10 of whom were removed using our established criteria. In this study, all participants were asked to think about a self-connected possession using the prompts from study 3. Then, participants were asked to write about either MS or social exclusion. They next completed the transcendence items from study 3 ($\alpha = .92$) and four self-esteem items from study 2 ($\alpha = .90$). Replicating the results from study 3, participants who experienced MS reported greater perceived transcendence after their donation choice ($M = 3.90$, SD $= 1.70$) than did those in the social exclusion condition ($M = 3.19$, SD $= 1.60$, $F(1, 88) = 4.17$, $p = .04$). Importantly, there was no significant difference in self-esteem between those who experienced MS ($M = 5.30$, SD $= 1.43$) and those who underwent social exclusion ($M = 5.26$, SD $= 1.35$, $F(1, 88) = 0.017$, $p = .90$). These results suggest that MS increased intentions of donating self-connected possessions, which in turn significantly influenced perceived transcendence (but not state self-esteem). This, along with study 2, casts doubt on the alternative explanation that self-esteem is the mechanism underlying increased donation intentions.

On a final note, study 3 found that social exclusion generally led to donation intentions on par with MS when transcendence was not possible. Notably, this finding is different from past work on social exclusion and prosocial behavior (Lee and Shrum 2012), which found that social exclusion through rejection increases monetary donations and helping. However, due to the nature of the donation context studied, it may not be surprising that donation intentions of a personal possession were low. Social exclusion through rejection motivates a desire for self-esteem and belongingness. Thus, maintaining a possession may be a better strategy to reaffirm self-esteem (giving the possession a greater weight because it is owned; Thaler 1980) as well as belongingness (possessions can represent meaningful relationships; Ball and Tasaki 1992; Ferraro et al. 2011).

STUDY 4: THE ROLE OF TRANSCENDENCE SATIATION

Our previous studies demonstrate that consumers are more likely to donate their own possessions when the item

is connected to the self (studies 1 and 3) and will choose to increase the connection between the self and the possession being donated (study 2) when mortality (vs. a control experience) is salient. We suggest that this is because a sense of self-connection to the possession allows for transcendence to be achieved. In study 4, we examine the role of transcendence satiation as a means to provide insight into our conceptualization. Specifically, we anticipate that people will be more likely to donate a self-connected possession under conditions of MS (vs. a control condition) only when they have not been able to achieve transcendence by other means. However, if the desire for transcendence has already been resolved via another route, then the observed differences in possession donations between the mortality-salience and control conditions should be mitigated (hypothesis 3). We test our prediction by exposing participants to a mortality-salience (vs. control) task, having them imagine joining a community group that is high (i.e., it will continue to exist after the consumer is dead) or low (i.e., it will no longer exist after the consumer is dead) in transcendence potential (Routledge and Arndt 2008) and then report their possession donation intentions.

Method

Participants and Design. We conducted a 2 (experience: MS vs. control [typical day]) × 2 (group type: transcendent group vs. non-transcendent group) between-subjects design. Three hundred sixty-one participants were recruited from a large North American university in exchange for course credit, with 35 removed using the same criteria as previous studies. Thus, the analysis was run with 326 participants (45.1% males, 54.6% females; ages 18–27 years, $M = 19.94$, SD = 1.48).[5]

Procedure. Participants completed either the mortality-salience task or the typical-day task described in the earlier studies. Next, following a procedure adapted from Routledge and Arndt (2008), participants were asked to imagine joining an organization that they intended to be a member of for the rest of their life. In the *non-transcendent group* condition, they were told that the organization would cease to exist when its current members were gone. In the *transcendent group* condition, participants were told that this group would continue to exist beyond the current membership and would always have a new generation of members. These manipulations were pretested to ensure that membership in the transcendent group (vs. non-transcendent group) would lead to a belief that one's identity would persist past death (see web appendix H for full details). All participants were then asked to think of a possession that was important to them but for which they had no need (adapted from Winterich et al. 2017). Participants read that "We all own items that are special to us. Often, these items represent a memory of a specific experience or event in your life. Many times we no longer use these items in any way. However, the item may be of use to someone else." After writing a description of this possession, participants were asked to rate the likelihood of donating their possession on four scale items: to a local goodwill, local nonprofit, a national nonprofit, and an international nonprofit ($\alpha = .96$; 1 = extremely unlikely to 7 = extremely likely; Winterich et al. 2017).

Results

An ANOVA was run using experience and group type as independent variables and the donation intentions index as the dependent variable. Results revealed no main effects for either experience ($F(1, 322) = 1.08$, $p = .300$) or group type ($F(1,322) = 0.45$, $p = .502$). Importantly, the anticipated interaction emerged ($F(1, 322) = 13.48$, $p < .001$). For those in the non-transcendent group condition, thinking of and writing about MS led to significantly higher donation intentions ($M = 5.68$, SD = 1.53) compared to those in the "typical day" control condition ($M = 4.72$, SD = 2.02, $t(322) = 3.36$, $p = .001$; figure 6). As predicted (hypothesis 3), in the transcendent group condition, there was no significant difference between the mortality-salience condition ($M = 5.06$, SD = 1.69) and the "typical day" control condition ($M = 5.60$, SD = 1.69, $t(322) = -1.85$, $p = .07$), although this was marginal. Finally, those in the mortality-salience condition who were part of a non-transcendent group were significantly more likely to give their possessions than those who were part of a transcendent group ($t(322) = 2.13$, $p = .034$).

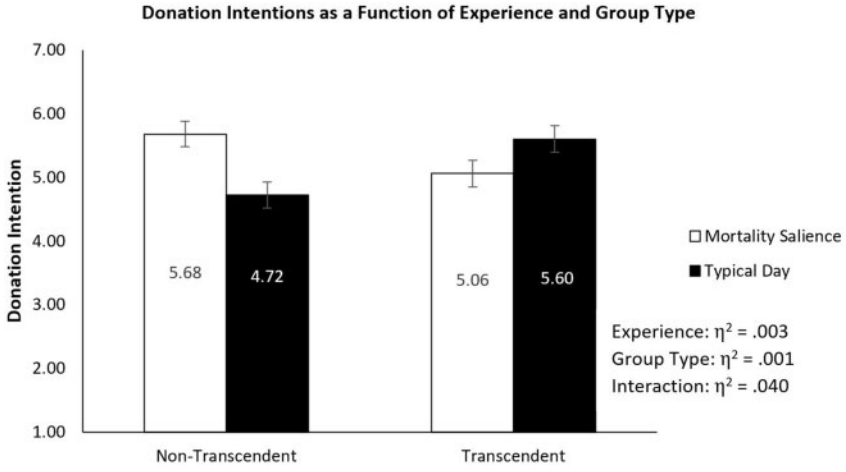
Discussion

Study 4 provided additional support for our conceptualization. When participants were able to satiate the desire for transcendence by other means, such as joining a transcendent group, the self-connected possessions were no longer needed as a means of transcendence (hypothesis 3). However, when joining a non-transcendent group that would not exist beyond its members' deaths, MS led individuals to be more inclined to give their self-connected possessions away (meeting the need for transcendence). Interestingly, something that we did not predict was that, for participants in the typical-day condition, the transcendent group condition led to marginally higher donation intentions than among those in the non-transcendent group condition. This result could potentially be due to a shift in focus from the self to the group for those in the control condition. Perhaps reading that there was a group to which one belongs that will

5 To ensure empirical integrity, a replication of this study was run. Results revealed that mortality salience led to greater donation intentions when involved with a non-transcendent versus transcendent group (predicted interaction: $F(1, 375) = 3.98$, $p = .047$) (for replication study, please see web appendix I).

FIGURE 6

DONATION INTENTIONS AS A FUNCTION OF EXPERIENCE AND GROUP TYPE



continue to exist increased the importance and value of the group membership. Thus, the importance of the self-connected possession could decrease and result in greater willingness to part with the item. Though unpredicted, these results are tangential to our focal theorizing. Future research could explore this interesting reversal of effects.

STUDY 5: MODERATION THROUGH DONATION VERSUS RECYCLING

In study 5, we again use a moderation approach to validate our conceptualization by examining a condition in which people may no longer be willing to donate their self-connected possessions under MS. If, as we propose, self-connected possessions are more likely to be donated because they satisfy the consumer's desire for transcendence under MS, then the motivation to donate should decrease when the act of donation does not allow for self-transcendence. For example, if the self-connected item is given to be recycled (i.e., broken down from its original form), then participants should be less likely to give away a self-connected possession under MS (hypothesis 4). We test this proposition by having participants complete the mortality-salience or the control task, asking them to consider an organization that is having a giving drive either for possessions to be donated and kept intact (donation condition) or broken down and recycled for money (recycling condition). Our key prediction is that participants will be more likely to donate a self-connected possession under MS (vs. a control condition) if the possession will be donated and passed along to someone else (vs. broken down and recycled).

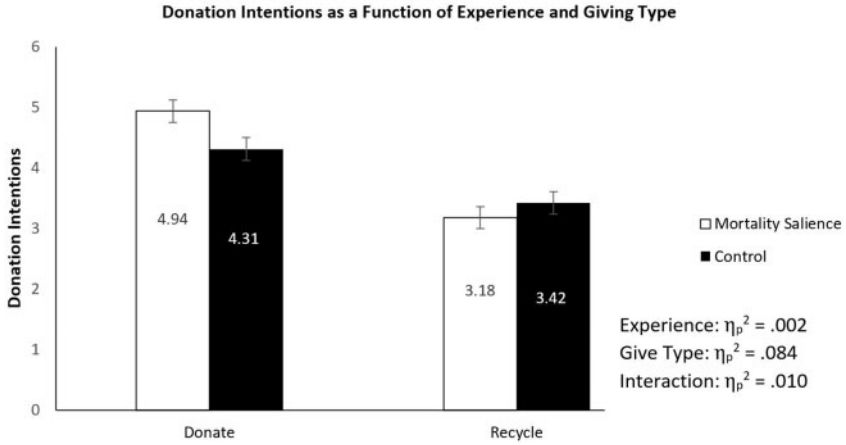
Method

Participants and Design. We ran a 2 (experience: MS vs. control [typical day]) × 2 (giving type: donation vs. recycling) between-subjects design. We recruited 442 participants from Amazon Mechanical Turk in exchange for monetary compensation. Of these participants, 45 were removed using the selection criteria detailed above. The final analyses were run on 397 participants (42.1% males and 56.2% females; 0.2% others; 1.5% no answer; ages 19–75 years, $M = 38.07$, SD = 11.90).

Procedure. All participants were asked to think about a possession that is self-connected in some way (as in study 2). Participants completed either the mortality-salience task or the control task (as in study 1). Next, participants read about an organization, Fresh Start, that was conducting a goods drive in which they were collecting possessions as donations. In the *donation condition*, participants were told that the donated item would be given to those in need and that Fresh Start fulfills its goals by passing on the possessions it collects to appropriate recipients. Participants in the *recycling* condition were told that the items donated would be recycled and that Fresh Start fulfills its goals by earning money from breaking down the possessions and recycling them (web appendix J). After reading this, participants were asked to respond to the donation-intention items from study 3 ($\alpha = .97$). To provide additional evidence that self-esteem is not driving our effect, after answering demographic questions, participants completed the 10-item Rosenberg (1965) trait self-esteem scale ($\alpha = .95$). Like study 2, trait self-esteem did not interact with either experience or giving type, indicating that the effects identified do not appear to be driven by self-esteem.

FIGURE 7

DONATION INTENTIONS AS A FUNCTION OF EXPERIENCE AND GIVING TYPE



Results

An ANOVA with experience and giving type as the independent variables and the donation intentions index as the dependent variable revealed no main effect of experience ($F(1, 393) = 0.789$, $p = .375$), a main effect of giving type ($F(1, 393) = 36.10$, $p < .001$), and a significant interaction ($F(1, 393) = 3.96$, $p = .047$; figure 7). When asked to consider giving the item for donation to others, replicating our previous results, participants in the mortality-salience condition were significantly more inclined to donate ($M = 4.94$, SD = 2.05) than those in the "typical day" control condition ($M = 4.31$, SD = 2.19, $t(393) = 2.06$, $p = .04$; figure 7). However, when asked to consider donating the item to be broken down and recycled, participants in the mortality-salience condition were no more inclined to donate ($M = 3.18$, SD = 2.23) than those in the "typical day" control condition ($M = 3.42$, SD = 2.33, $t(393) = -.770$, $p = .442$). Moreover, participants in the mortality-salience condition were also significantly more likely to give when the item would be donated than when the item would be recycled ($t(393) = 5.84$, $p < .001$).

Discussion

Study 5 shows that if the act of donation does not allow for transcendence, possession donation under MS is mitigated (hypothesis 4). Indeed, we find that participants under MS (vs. a control condition) are more likely to donate their self-connected possessions only when the physical integrity of their possessions is kept intact, but not when the possession will be broken down and recycled. We argue that these results emerge because the physical integrity of the possession (in donation contexts) is a necessary condition for transcendence to be achieved. In other words, to be a symbolic carrier of the self, the product needs to be kept whole, rather than broken down and recycled.

GENERAL DISCUSSION

Across five studies, we provide converging evidence that, under MS, people are more likely to donate possessions in ways that allow for transcendence compared to when they are not under conditions of MS. While TMT might suggest that one way to counter the existential anxiety of MS is to maintain cultural worldviews by holding on to one's own self-relevant possessions (Solomon et al. 1991), we outline the conditions under which MS leads consumers to give their possessions away. Drawing upon the notion that possessions can become extensions of the self (Belk 1988; Ferraro et al. 2011), we propose and find that donating in response to MS (vs. comparison conditions) is highest when self-transcendence is possible.

Study 1 provides evidence for our theorizing by demonstrating that MS leads to increased actual donations of owned products (i.e., books), but only when the possession is linked to the self via the act of signing the book. Study 2 builds on these initial findings suggesting that MS motivates the desire for transcendence by demonstrating that mortality leads people to choose to increase self-connection to a product (via signing it) before donation. Importantly, study 3 demonstrates that MS leads to heightened donation intentions only when the donated possession is self-connected (and not when it is nonself-connected); it shows that the act of donation increases an individual's subsequent feelings of perceived transcendence. Study 4 further examines the role of transcendence by demonstrating that possession donation under MS is mitigated when participants achieve transcendence through other means (i.e., joining an immortal group). Study 5 shows that, under

MS, the likelihood of donation is diminished when the donated possession no longer allows for transcendence because it is going to be broken down and recycled, rather than passed along to another person.

Theoretical Contributions

The current research makes a number of theoretical contributions to the literature. First, we expand upon work on TMT and prosocial behavior. Previous work has been limited to demonstrating that support for prosocial groups (i.e., attitude change, support intentions) under MS increases when an important cultural worldview or personal value is made salient (Jonas et al. 2002, 2008; Joireman and Duell 2007). We provide evidence that possession donation increases under MS when the act of giving facilitates the self's connection to the possession in a way that allows for transcendence. In doing so, we demonstrate the conditions under which a novel response to MS will emerge—donation of one's own possessions.

Second, we build upon work examining self-connected possession, which has generally found that giving away highly self-connected items can result in feelings of loss or grief (Ahuvia 2005; Ferraro et al. 2011). In fact, past work on bequeathing important possessions has found that individuals are unwilling to part with their possessions unless they are passed along to people who have appropriate usage intentions (Brough and Isaac 2012), or the owner is able to mitigate the perceived identity loss via other means (i.e., taking a picture of the product before giving it away; Winterich et al. 2017). We contribute to the work on product donation by showing that donating self-connected possessions can be a means of achieving transcendence after experiencing MS. Thus, we highlight that self-connected possessions are not always coveted under MS but can sometimes be willingly given away.

Finally, the current findings contribute to the literature on symbolic immortality by further exploring the role of transcendence in driving people's responses to MS. Existing research in this domain has examined how different factors such as having offspring, experiencing a religious or spiritual connection, or producing creative works can act as means of achieving symbolic immortality (Lifton 1979). To the best of our knowledge, the current work represents the first empirical test of the notion that MS leads to giving away one's own possessions in ways that allow for transcendence. This is a novel type of transcendence in which a part of the self becomes symbolically extended to a possession that can be passed on to others. While past research suggests that the self-concept can, in part, be composed of products that we own, thereby becoming an "extended self" (Belk 1988), and that people can cultivate a sense of identity via owned possessions (Kleine, Kleine, and Kernan 1993), we suggest a process whereby a part of the self symbolically becomes a piece of the possession in a way that allows for transcendence to occur.

Practical Implications and Directions for Future Research

This work provides insight into how charities and other organizations can more effectively elicit donations of possessions. If the marketer can subtly elicit an awareness of mortality while offering an avenue for perceived transcendence (such as providing a name attached to a donation), donations should increase. This suggests that, under certain conditions, companies could use marketing materials that both elicit MS and provide transcendence-oriented incentives. That being said, we suggest that activating MS should be done with great sensitivity, so as to avoid provoking overly defensive reactions. For example, gentle reminders that "life is short" or YOLO—"You only live once"—might be given, rather than directly activating MS.

To test the managerial implications of our observed process, we ran a preregistered[6] experiment ($N = 387$) in which we manipulated MS (vs. control) and transcendence potential through advertising (web appendix K). We created advertisements conveying MS (We do not know if there is life after death, but we can give your possessions new life) or a control statement (What is so last season to you can be the perfect fashion statement for someone else). We also manipulated whether the advertisement featured an act of self-connection to the donation prompt or did not. Participants were randomly assigned to view one of these four advertisements and answer donation intentions. If our effect can be manipulated using more subtle advertising primes, we would expect that the mortality-salience advertisement featuring the self-connection act would lead to greater donation intentions than the mortality-salience advertisement without a self-connection act. The results replicate our focal interactive effect ($F(1, 383) = 4.86$, $p = .028$; web appendix K). Participants who viewed the mortality-salience advertisement featuring a self-connecting act were significantly more inclined to donate ($M = 4.47$, SD = 1.78) than those who saw the mortality-salience advertisement that did not feature a self-connection charitable act ($M = 3.55$, SD = 1.88, $t(383) = 3.57$, $p < .001$). These results demonstrate that managers can use subtle mortality-salience and transcendence-potential primes to increase giving through advertising.

While we work explicitly with possessions in this research, we do presume that the approach here will work with monetary donations as well. As an extension to the above study, which elicited possession donation via advertising, we wanted to see whether our paradigm could also elicit monetary donations if the donation act has

6 Preregistered at Aspredicted.org: https://aspredicted.org/blind.php?x=y9m2g8.

transcendence potential. Specifically, in a follow-up study, we manipulated whether one's monetary donation would lead to the identification of the donor's name in a public, permanent place, such that transcendence might be possible via a somewhat lasting connection to one's name. This study ($N = 292$) found that, when the donation resulted in the inclusion of one's name in a public space (vs. no inclusion of name), monetary donations increased under MS ($M_{Name} = 4.55$, $M_{NoName} = 3.88$, $t(288) = 2.42$, $p = .016$; web appendix L). Thus, transcendence seems able to spur monetary donations.

Moreover, companies can remind consumers of the importance of possessions as legacy makers. Objects that lend themselves to identity relevance (such as luxury items) may motivate consumers to make a purchase to pass the item on to their families in the future. For example, in a tagline from its "Generations" campaign, the Patek Philippe brand promotes its premium line of watches by saying: "You never actually own a Patek Philippe, you merely look after it for the next generation." In this well-lauded advertising campaign (Naas 2016), the brand takes an interesting approach by reminding the consumer that they will, in fact, die one day. This is indeed intriguing as a messaging strategy, since an existing body of research indicates that reminding consumers of their mortality in such a way can lead to negative affective reactions and defensive consumer responses (Greenberg, Solomon, and Pyszczynski 1997; Solomon et al. 1991). However, at the same time, the advertisement highlights that this material good can carry the memory of the giver forward to future generations. Our work suggests that Patek Philippe may be successfully motivating consumers to make purchases that will one day allow them to achieve transcendence by giving to others. Future work could examine whether campaigns like this are persuasive and whether there are certain types of product categories that lend themselves to successful perceptions of transcendence.

Another relevant example of how the current findings can be practically applied is that of planned or deferred giving. This involves committing to a charitable contribution at a later point in time, often associated with one's own passing. In the context of allocating a donation to charity as part of one's will or estate, MS is likely to be activated (James and O'Boyle 2014; James and Routley 2016). In such cases, it makes sense to offer donation options that allow for a sense of self-connection and transcendence to occur. This could be done by linking the donation to the donor's name and providing some lasting material representation of the donation, such as a displaying donor names on a plaque, wall, or mural or naming a recurring award or program after the donor. Future research could examine the effectiveness of allowing for self-connected donation acts in planned giving contexts. Moreover, research might examine the relative permanence of the donation in such contexts. For example, publishing one's name in a brochure might seem less permanent than having something more lasting in one's name (see web appendix L for a study using similar manipulations).

Future work also could expand the research conversation around organ donation. Many countries have a high need for organ donations, but often there are few individuals signing up to be organ donators. For example, 95% of US adults support organ donation, but only 58% are actually registered as donors (Health Resources and Service Administration 2019). Past work on MS suggests that, because organ donation reevokes the mental image of death, the positive effects of prosocial giving disappear due to increased direct defensive processing (e.g., avoidance; Hirschberger et al. 2008). Our conceptualization would suggest that, if the organ donation appeal highlighted potential for transcendence that the donation act creates, then consumers might be more receptive to signing up to be an organ donor.

The current research finds evidence that the way in which a possession is linked to the self can change possession-donation intentions and behaviors under conditions of MS. One possibility is that our observed effects might be moderated by the tendency to see possessions as extensions of self. Ferraro, Escalas, and Bettman (2011) developed a scale that measures individual differences in one's self-extension tendency, or proneness to seeing the self as being connected to important possessions. It could be that those participants who are inclined to self-extend onto possessions will be more likely to demonstrate donation behaviors after MS. Preliminary evidence from our laboratory supports this possibility. We conducted a study in which experience (MS vs. a typical day) was manipulated and self-extension tendency was measured. We found that for participants higher in self-extension tendency, MS led to greater possession-donation intentions (web appendix M). This suggests that there are individual differences that would lead to increases in the tendency to donate possessions under MS. As another example, those high in individual differences in materialism may be less likely to donate possessions because keeping an owned material good might reinforce an important cultural worldview for them. Furthermore, individual differences tapping into the belief in an afterlife may also moderate the identified effects. This is because individuals with these beliefs already have a means of achieving symbolic immortality, and thus, they might not need to strive for symbolic immortality via possession disposition.

Other work on MS and donation has mentioned that, when the charitable organization itself creates mortality thoughts (e.g., blood donation), there is a decrease in prosocial behavior (Hirschberger et al. 2008). In the current research, we only look at donating to charitable organizations that are neutral or focused on non-mortality-related issues. It could be that the type of charitable cause could moderate the effect of MS on giving. Future research could

examine whether organizations that evoke mortality would attenuate or, perhaps, magnify our effect. Furthermore, future research could examine the recipients of the donation as a potential moderating factor. There are certain organizations in which the donation behavior is to sponsor a child, which might provide another means through which transcendence could occur. Future research could explore if the type of organization and its cause, in and of itself, could create a sense of transcendence for the individual. Finally, on a theoretical front, past TMT work has found that MS can increase the accessibility of death-related thoughts. If our mechanism of transcendence is acting as a way to relieve this anxiety, then one possibility is that death-related thoughts might also decrease post-donation. While we did not focus on this in the current set of studies, these other psychological consequences of possession donation under MS, such as decreased anxiety, would be interesting to examine in future research.

Taken together, the current research points to product donation as one means through which transcendence might be achieved, by symbolically passing a piece of the self along to others. Indeed, in our studies, people were most likely to donate possessions when transcendence potential is high—when the product is closely connected to the self, when transcendence has not already been achieved via some other means, and when the product will be passed along intact to others. We hope that this work spurs future research examining this unique form of transcendence and its potential consequences.

DATA COLLECTION INFORMATION

The first author collected and analyzed the data for all the pretests and experiments. Study 1 was run at the Behavioral Lab of Sauder School of Business, University of British Columbia in October 2016, March 2017, and fall 2018. Study 2 was run on Amazon's Mechanical Turk in September 2019. Study 3 was run on Amazon's Mechanical Turk in September 2018. Study 4 was run at the Behavioral Lab of Sauder School of Business in fall 2019. Study 5 was run on Amazon's Mechanical Turk in February 2019. The GD study was run on Prolific UK in October 2019. Pretests for MS manipulations were conducted in November 2015. All pretests for manipulations for studies 1 and 4 were run in December 2017. Pretest for the GD study was run on Amazon's Mechanical Turk in October 2019.

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