Bringing Narratives to Life: Animism, Totems, and Intangible Value

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ABSTRACT

Existing research on narratives has found that simply telling a story about an object, such as a travel souvenir or a name brand product, can increase how much people value it. The present studies examine how the value supplied by narratives may differ, depending on the type of object that is described. Drawing on field data from eBay, as well as several experiments, the current studies find that narratives enhance value more when they are connected to objects that resemble living things versus objects that are plainly inanimate. This effect arises because animistic objects increase the extent to which people feel engaged in the story, which in turn enhances their value. This research provides insights into how narratives affect the subjective value of objects. It also connects to the work of early twentieth-century scholars in psychology and anthropology, who discussed animistic totem objects as an important window into the nature of people's intuitive psychology.

We are therefore not astonished to learn that something else went hand in hand with the animistic system, namely, the elaboration of directions for making oneself master of men, animals, and things, as well as of their spirits.

—Sigmund Freud (1913)

In 2009, two journalists, Joshua Glenn and Rob Walker, began an ambitious project aimed at documenting the role of subjective value in consumer behavior. Glenn and Walker purchased a couple hundred items from secondhand stores—small trinkets, figurines, and knickknacks—for roughly a dollar a piece. Each object was then assigned to a different author, who created a fictitious story about that object. The objects were auctioned on eBay with the stories included. The results were quite remarkable: in total, the lot sold for over $8,000 with many of the objects selling for well over a hundred dollars each. A collection of 100 objects and stories was later published as a book in 2012, Significant Objects (Glenn and Walker 2012).

The results of the Significant Objects project bear on a number of questions regarding the ways in which narratives can infuse objects with value. For example, existing research has documented how narratives play a central role in the value assigned to sentimental objects (Price, Arnould, and Curasi 2000; Yang and Galak 2015), travel souvenirs (Zauberman, Ratner, and Kim 2009), vacations (Adaval and Wyer 1998), and consumer products (Escalas 2004). Overall, this research finds that narratives tend to increase the extent to which people value various goods.

The aim of the present study is to examine how the value supplied by narratives may differ, depending on the type of object that is described. Drawing on data from the Significant Objects project as well as three follow-up experiments, the current studies find that narratives increase value more when they are connected to objects that resemble living things (hereafter, animistic objects) versus objects that are plainly inanimate (e.g., a small plate, cooking utensil, etc.). In other words, simply telling a story about an object increases the amount of money people are willing to pay for it; all else being equal, that effect appears to be more pronounced for animistic things.

THEORETICAL BACKGROUND

Narratives and Value

The human mind appears to be particularly well suited toward the production, interpretation, and retention of narratives. Indeed, narratives play a prominent role in nearly every aspect of daily life. Therefore, it is not surprising that many researchers in psychology and beyond have sought to understand how narratives affect a wide range of phenomena from entertainment, to interpersonal interactions, to consumption.
A number of studies have demonstrated that individuals analyze and retain narratives differently than other types of information. Such effects have been summarized via a model of narrative transportation (Green and Brock 2000) that describes the conditions in which individuals are likely to “lose themselves in a story” and undergo changes in their attitudes and behavior (see van Laer et al. [2014] for a meta-analysis). For example, it is essential that the characters are identifiable and a potential target of empathy (Slater and Rouner 2002; Escalas and Stern 2003; van Laer et al. 2014). A related factor is the ease with which someone is able to follow the plot or narrative flow, and in turn, imagine the sequence of events unfolding (Green and Brock 2002; Green et al. 2008). Thus, one prerequisite of successful narratives seems to involve their clarity, understandability, and so forth.

In turn, narratives have been shown to increase the valuation of a variety of objects and experiences. This is true when the narratives are personally relevant. For example, in the case of sentimental objects, associating a particular object with a meaningful life event increases how much people value it (Grayson and Shulman 2000; Price et al. 2000; Yang and Galak 2015). Relatedly, people seek out unique objects to serve as reminders of meaningful life experiences (Zauber et al. 2009). Narratives, however, can also enhance value even when the story is not from one’s own life. For example, narratives (compared to a simple list of features) enhance consumers’ evaluations of vacations (Adaval and Wyer 1998), and brand narratives increase the extent to which consumers feel connected to the brand and its offerings (Escalas 2004).

Thus, previous research has examined how narratives inform subjective appreciations of value, and all else being equal, that effect seems to be largely positive. To date, however, researchers have not examined how narratives may potentially interact with the type of object they describe. Put differently, it is unclear whether the same narrative will have a greater effect on value when it is associated with one type of object versus another.

Animism and Totems
As adept as the mind is at reasoning about narratives, there is arguably even more cognitive architecture dedicated to reasoning about living things. Even young infants readily distinguish animate from inanimate entities and appear to have sophisticated and distinct expectations about them (e.g., Johnson, Slaughter, and Carey 1998; Woodward 1998; Kuhlmeier, Bloom, and Wynn 2004; Newman et al. 2010). Slightly later in development, children are highly attentive to the animate world and will readily construct agent-based explanations for a host of phenomena. Such “promiscuous teleology” has been observed across a range of cultures and seems to arise independently of parents’ own belief systems (Kelemen 1999). The early emergence and ubiquity of such phenomena has motivated several scholars to posit the existence of a sophisticated “animistic system” that is dedicated toward reasoning about the animate world (e.g., Guthrie 1993; Winkelman 2002).

Humans are highly adept at detecting and reasoning about other living entities, but animism is also a central way in which people interpret and understand the world around them. For example, Freud once wrote, “Animism, the first conception of the world which man succeeded in evolving, was therefore psychological. . . Animism was natural and self-evident to primitive man” (1913, 100). Accordingly, researchers have documented the ways in which various properties of animate entities may be further extended to inanimate objects which possess similar characteristics, such as contingent actions or a face (see Epley et al. [2007] for a review).

For example, people apply social norms to their computers and expect them to behave reciprocally (Morewedge 2009); plants are ascribed intentions when viewed using time-lapse photography (Morewedge, Preston, and Wegner 2007); and consumers prefer “smiling” cars to “frowning” ones (Aggarwal and McGill 2007). Thus, in addition to providing a means of readily detecting and reasoning about other living entities, animism appears to be an important way in which people understand their external environment, including entities or phenomena that are entirely inanimate.

The present studies investigate whether narratives enhance value more when they are associated with animistic objects (see fig. 1). For the present studies, animistic objects are defined broadly as inanimate objects that resemble living things (i.e., people, animals, plants). Why would narratives enhance value more when they are associated with animistic objects?

Existing research on anthropomorphism suggests that people often imbue objects with person-like features as a means of substituting for actual relationships with others (Epley et al. 2007). In other words, there appears to be an important psychological connection between anthropomorphic or animistic tendencies and people’s fundamental desire to form and maintain social relationships—the so-called need to belong (Baumeister and Leary 1995; fig. 2). Consistent with this, Epley et al. (2008) find that individuals who are higher in the need to belong are more likely to anthropomorphize objects. Moreover, people who are socially excluded...
report stronger beliefs in anthropomorphized religious entities (Kirkpatrick and Shaver 1990). And consistent with the logic of the present studies, people who are higher in the need to belong are more likely to respond to environmental conservation ads that anthropomorphize nature (Tam, Lee, and Chao 2013).

Relating this to the current investigation, it is possible that belonging needs provide one avenue through which narratives can enhance the value of objects. Specifically, existing research has shown that narratives are valued, in part, because people want to feel connected to others (Escalas 2004). Narratives may foster a sense of social connection as people empathize with the characters and try to relate events in the story to meaning in their own lives (2004). In turn, when narratives are associated with objects that resemble living things, the objects themselves may provide a sense of social connection (Epley et al. 2007), which may reinforce and aid the extent to which individuals derive a sense of connection. In other words, animistic objects may provide a more engaging “vessel” for narratives and therefore a more effective means of providing a sense of social connection.

This notion of animistic objects as vessels for narratives relates to work in sociology and anthropology on totem objects. Totem objects are defined as inanimate objects, which often have animal- or human-like features and carry symbolic or religious meaning (Levi-Strauss 1962). Throughout many different cultures, totems are used as physical manifestations of cultural narratives, symbols of ownership and group affiliations, and pneumonic devices for sharing religious and secular cultural practices. The conceptual relationship between narratives and totem objects naturally arises because narratives are a central way in which people talk about their cultures and share cultural knowledge (Janke 2005; Wyeld et al. 2007; Tidemann, Chirgwin, and Sinclair 2010; Lawrence and Paige 2016). People use narratives when describing themselves, describing their affiliations, or communicating knowledge to others, and these patterns may readily extend to symbolic objects, such as totems.

In sum, people across many different cultures have used totem objects as important physical manifestations of (and signifiers to) cultural narratives. While the relationship between narratives and totem objects has been discussed extensively in anthropology and sociology, the topic has received less attention in empirical psychology and consumer behavior. Therefore, the goal of the present studies is to investigate how the link between narratives and animistic objects may affect perceptions of value.

THE CURRENT STUDIES

Using data from the Significant Objects project, as well as three empirical studies, this article investigates whether narratives enhance value more when they are associated with objects that resemble living things. Study 1 analyzes data from the Significant Objects project and finds that, all else being equal, when narratives are paired with animistic (vs. inanimate) objects, they wind up selling for more money. Study 2 replicates this effect in a controlled experiment. Study 3 examines the relationship between this phenomena and desires for social belonging, while study 4 examines a case in which the same object is framed in an animistic versus inanimate way.

STUDY 1: THE SIGNIFICANT OBJECTS PROJECT

The data for study 1 were obtained from two sources. The first consisted of data collected as part of the Significant Objects project. As described in the introduction, the Significant Objects project was aimed at documenting the effect of narratives on subjective value. Joshua Glenn and Rob Walker purchased 210 inexpensive second-hand objects (e.g., small trinkets, figurines and knickknacks) and then assigned each item to a different author, who created a fictitious story about that object. The objects were then sold on eBay with the accompanying narratives. The apparent effect of the narratives was substantial as the objects sold for roughly 40 times their initial acquisition cost. Through the generous cooperation of Glenn and Walker, I am able to observe both the final amount that each item sold for on eBay, as well as its original acquisition cost (from the second-hand store).

A second source of data included willingness to pay (WTP) data from a sample of roughly 800 Amazon Mechanical Turk (MTurk) participants. The objects were decoupled from the narratives and participants indicated how much they would be willing to pay for the objects. These data serve as an interesting point of comparison to the field data. Specifically, we can assess whether there is an effect on animism on valuation independent of the narratives. We can also ask to what degree these independent assessments of value are predictive of the final sale values.

Method

The Significant Objects Project. On their website (http://significantobjects.com) Glenn and Walker describe their project as follows: “A talented, creative writer invents a story about an object. Invested with new significance by this fiction, the object should—according to our hypothesis—acquire not
merely subjective but objective value. How to test our theory?

Via eBay!

The project was divided into two phases that ran from July 2009 to June 2010. In the first phase, Glenn and Walker purchased 100 items from second-hand stores. Glenn and Walker then contacted 100 authors to participate in a “quasi- anthropological experiment” on how “narrative transforms insignificant objects into significant ones.” In purchasing the items and providing instructions to the authors, Glenn and Walker used the following as guidelines (taken directly from http://significantobjects.com): “(1) The experiment’s curators purchase objects—for no more than a few dollars—from thrift stores and garage sales. (2) A participating writer is paired with an object. He or she then writes a fictional story, in any style or voice, about the object. Voila! An unremarkable, castoff thingamajig has suddenly become a ‘significant’ object! (3) Each significant object is listed for sale on eBay. The significant object is pictured, but instead of a factual description the significant object’s newly written fictional story is used. However, care is taken to avoid the impression that the story is a true one; the intent of the project is not to hoax eBay customers. (Doing so would void our test.) The author’s byline will appear with his or her story. (4) The winning bidder is mailed the signifiant object, along with a printout of the object’s fictional story. (5) Net proceeds from the sale are given to the respective author. Authors retain all rights to their stories.” The first phase ran from July to November 2009. All descriptive data regarding acquisition costs and sale values are provided in the Results section.

In the second phase, the same process was repeated for an additional 110 items. However, in this phase, the proceeds were donated to various charities and nonprofits, and this fact was disclosed as part of the eBay description. The charities included 826 National, a creative-writing tutoring program for teenagers in seven cities (December 2009 to February 2010); Girls Write Now, a nonprofit that mentors at-risk young women in New York City (March 2010 to May 2010); and Root Division (June 2010).

In 2012, Fantagraphics published a book of 100 Significant Objects stories. Glenn and Walker graciously provided all text and images used in all phases of the project, the original acquisition costs of each item, the final sale value of each item, and identifying notes regarding the authors and objects.

**Narrative-Absent Valuation.** The objects were divided into 21 bins of 10 objects each. A total of 800 MTurk participants were recruited; 776 completed the survey, yielding roughly 37 independent WTP values per object. Participants were shown a picture of each object (as it appeared in the eBay listing) on a separate page. At the beginning of the survey, they were instructed: “In this survey, you will be asked to examine photographs of 10 different objects. Each object was purchased at a local thrift store.” For each object they were asked, “What is the most amount of money that you pay for this object?” and were provided with a blank text box. The objects were presented in random order.

The data were then aggregated across all participants by averaging the WTP values for each object. I then constructed a metadata file that contained each of the 210 listings as part of the Significant Objects project, the final sale values, the acquisition costs (for each object), and (the average) independent WTP values for each object (supplied by MTurk participants). Due to a programming error, the final data set was missing WTP values for one object, which were never collected.

**Anthropomorphism.** Photos of all of the objects were shown to two coders who were blind to the study’s hypothesis. Coders were asked to differentiate between objects that took the form of a person, animal, plant, or imaginary creature versus those that did not (1 = animistic, 0 = inanimate). Agreement between the raters was 97%, and any discrepancies arising from ambiguous stimuli were resolved to reach unanimous consensus. This resulted in 85 animistic and 125 inanimate objects.

**Results**

The average acquisition cost of the objects was $1.28 (SD = $0.97) with a range of $0.00–$4.00. The average WTP for just the objects (supplied by MTurk workers), independent of the stories was $3.32 (SD = $2.34) with a range of $0.61–$21.97. The average final sale value on eBay was $38.33 (SD = $31.75) with a range of $2.38–$197.50. In short, the objects sold on eBay for roughly 40 times their acquisition cost and roughly 10 times their estimated value.

**Narrative-Absent Valuation.** The first analysis examined the WTP data supplied by the MTurk workers. The WTP values were log-transformed in order to normalize the distributions. There was no effect of object type (animistic vs. inanimate) on WTP ($F(1,207) = .276$, $p = .60$, NS). Interestingly, the WTP values were highly predictive of the acquisition costs ($\beta = .23$, $p = .001$). However, the WTP were marginally negatively related to the final sale values in eBay.
\[
\beta = -0.13, p = .07, \quad \text{and the acquisition costs were not predictive (} \beta = -0.07, p = .32). \text{In other words, whereas there did seem to be some inherent differences in the market value of the items (that was captured in both the estimates supplied by MTurk participants and the actual secondhand market), those differences did not predict what the items sold for on eBay once they were paired with narratives.}
\]

**Predicting Sale Values.** An ANCOVA tested the effect of object type on the final sale values, controlling for whether or not the proceeds were donated to charity. This analysis indicated a significant effect of object type on sale values \(F(1, 207) = 5.90, p = .016\) such that the animistic objects \((M = 3.52, SE = .08)\) sold for more than the inanimate objects \((M = 3.27, SE = .07)\). There was also a marginal effect of proceeds (for charity vs. not; \(F(1, 207) = 3.04, p = .08\)), such that the objects sold for more when the proceeds went to charity \((M = 3.45, SE = .08)\) than when they did not \((M = 3.29, SE = .07)\).

**Discussion**

These results are fascinating for a number of reasons: First, they indicate that in conjunction with the Significant Objects projects, animistic objects did indeed sell for more than the inanimate objects. Interestingly, however, there was not an effect of animistic objects on the WTP values supplied by MTurk participants. This suggests that the effect observed in the eBay data is not simply the result of a preference for animistic objects. Rather, there seems to be a unique effect of animism when the objects are paired with narratives.

Of course, one might argue that this difference is simply because the WTP values from MTurkers were unreliable. However, the WTP values were actually highly predictive of the objects’ values independent of the narratives (as confirmed by the significant relationship between the MTurk WTP values and the actual acquisition costs from the thrift stores). This suggests that the differences between the eBay effect versus the WTP data is not simply a matter of unreliability and may instead stem from distinct psychological processes.

**STUDY 2: EXPERIMENTAL REPLICATION**

Study 1 found that when paired with narratives, animistic objects sold for more than inanimate objects. Given, however, that the Significant Objects project was a naturalistic study, each object was paired with a different author, and each author constructed a story around that particular object. Therefore, a number of factors were confounded across the different stories and objects, and the causality may have even run in the reverse direction (e.g., certain animistic objects may have inspired more compelling stories from the authors).

Therefore, the aim of study 2 was to test whether the same pattern replicated under more controlled circumstances. Specifically, two objects were selected from the Significant Objects project: one was animal-like (a wooden duck), and one was plainly inanimate (a wooden meat tenderizer). Both objects yielded roughly the same WTP from the MTurk participants in study 1. Those objects were then paired with two different kinds of text, also from the Significant Objects project: one followed a typical narrative format; it had characters, a plot, and an easy to understand flow of events. The other text was free verse text and did not follow a linear structure. It did not have characters or a clear plot of any kind. This text served as a control. Importantly, neither piece of text was originally written about either object, ensuring that the narrative and the type of object were deconfounded.

Two types of text (narrative vs. control) were examined in order to determine whether the enhanced valuation of animistic (vs. inanimate) objects is importantly related to narrative processing per se or instead simply a preference for animistic objects (e.g., because they are more attractive, likable, etc.). Given that many features differ between the animistic versus inanimate object, the critical question was whether pairing the animistic object with a narrative (vs. control text) would have a larger effect on value than pairing the inanimate object with a narrative (vs. control text).

The stories and objects were then fully crossed in a 2 (object type: animate vs. inanimate) \(\times\) 2 (text type: narrative vs. control) between-subjects design. All participants were asked to imagine that the item was listed for sale on eBay along with the accompanying text and were asked to indicate how much they would be willing to pay for it.

**Method**

In sum, 442 adults \((M_{\text{age}} = 36.6, 42.8\% \text{ female})\) were recruited from Amazon’s MTurk. All participants were first asked to read the following prompt:

Imagine that you are on eBay, and you encounter the item (displayed on the next page) for sale. The item is accompanied by the text provided below. Please continue to the next page to view the item.
Half of the participants then were shown a picture of (and read a narrative about) a wooden duck (animistic object), while the other half were shown a wooden meat tenderizer (inanimate object). Unlike the Significant Objects project, participants were not explicitly told that the text was fictional. Both objects yielded the same WTP when they were presented separately from the narratives (duck \( M = 1.99 \); meat tenderizer \( M = 1.97 \)).

The type of object was crossed with the type of text. The control text (originally written by Stephanie Reents) was written from the perspective of a journalist who obtained the object from a well-known playwright. The narrative was 384 words long and in pretest, received a mean rating of 5.86 out 7 for ease of understanding. A portion of this text is provided below:

It was a crisp fall afternoon, and I had taken the Hamptons Jitney out to see Schulberg, who lives near the ocean. He picked me up in his car. He was ninety-two at the time, and his head just about cleared the dashboard. We made it back to his house more or less in one piece.

We sat down in his living room, which was a jumble of really great stuff. On the mantelpiece was his Oscar for On the Waterfront (patina chipped and damaged and way too obvious to steal), a signed photograph of F. Scott Fitzgerald (framed and therefore too clunky), and a number of seashells (too cute).

The control text (originally written by Stephanie Reents) was a free verse text and did not follow a linear structure. The difficult narrative was 318 words long and in pretest, received a mean rating of 5.86 out 7 for “ease of understanding.” A portion of this text is provided below:

1. The transparency of glass is cruel.
2. When the beige palm of the sky descends, there is no warning, no chicken calling, “The sky is falling, The sky is falling.”
3. A sphere has no beginning or end, and thus my story does not start, “Once upon a time, long, long ago...” But rather, “Yesterday, today, and tomorrow,” or “Today, tomorrow, and yesterday.” I was and am and will be.

Both texts were altered very slightly so that they could equally describe either the duck or the meat tenderizer. Thus, participants were randomly assigned to one of four conditions in a 2 (object type: animate vs. inanimate) x 2 (text type: narrative vs. control) between-subjects design.

In all conditions, the primary measure was how much money participants were willing to pay for the item. Additionally, participants were asked, how much would you like to own this item? (0 = not at all, 100 = very much so); Is this item worth keeping, or would you throw it out? (0 = I would definitely throw it out, 100 = definitely worth keeping); How likely would you be to purchase this item? (0 = not at all, 100 = very likely).

**Results**

**Willingness to Pay.** The WTP data were log-transformed, which normalized the distribution and censored participants who indicated a WTP of zero. This is consistent with study 1 since in an actual auction, data can only be observed for individuals who are willing to pay something for the item. Two participants provided WTP values of $10,000, which was >14 SD from the group mean. These values remained statistical outliers even after log-transforming the data and so these participants’ WTP data were excluded from the WTP analysis.

The WTP data were then submitted to a 2 (object type: animistic vs. inanimate) x 2 (text type: narrative vs. text) ANOVA. This analysis indicated a significant main effect of text type \( (F(1,325) = 68.15, p < .001) \) and a significant interaction between text type and object type \( (F(1,325) = 7.33, p = .007) \). In short, the difference between the narrative versus control text was greater for the animistic object \( (M_{narr} = 2.62; M_{ctrl} = .59, t(161) = 8.04, p < .001) \).
than for the inanimate object ($M_{\text{narr}} = 2.15; M_{\text{ctrl}} = 1.12$, $t(150.49) = 3.87, p < .001$). Further, a contrast analysis indicated that the “animate narrative” yielded significantly higher valuation than the other three conditions ($t(325) = 6.47, p < .001$).

**Composite Measure.** The other measures of valuation formed a reliable scale and were averaged ($\alpha = .82$). (Note that these data included all participants tested, since no transformation was performed). These data were submitted to an analogous $2 \times 2$ ANOVA, which indicated a significant main effect of text type (narrative vs. control; $F(1, 438) = 51.69, p < .001$) and a marginal interaction between text type and object type ($F(1, 438) = 3.18, p = .08$). Analogous to the results with WTP, the difference between the narrative versus control text was greater for the animistic object ($M_{\text{narr}} = 32.34; M_{\text{ctrl}} = 13.83$, $t(207.39) = 6.41, p < .001$) than for the inanimate object ($M_{\text{narr}} = 29.54; M_{\text{ctrl}} = 18.39$, $t(218) = 3.83, p < .001$). Mirroring the results with WTP, a contrast analysis indicated that the “animate narrative” yielded significantly higher valuation than the other three conditions $t(438) = 5.00, p < .001$.

**Discussion**
Study 2 replicated the results of the field using an experimental design. Pairing an object with a narrative (vs. non-narrative text) did result in a large increase in value. However, the difference in value between the narrative versus control text was greater for the animistic object than for the inanimate object. Additionally, the highest valuation resulted in the condition in which the animal-like object was paired with a narrative. This supports the observations from the Significant Objects project and is consistent with the notion that animistic objects may serve as a better vessel for narratives.

**STUDY 3: THE NEED TO BELONG**
Studies 1 and 2 found that narratives enhance value more when they are associated with objects that resemble living things. The aim of study 3 was to examine the underlying mechanism. Participants read the same narrative about either an animistic object or an inanimate object. In addition to measures of valuation, however, participants completed an established 10-item need-for-belonging scale (Leary et al. 2013). Based on the hypothesis that animistic objects enhance the social benefits derived from narratives, it was predicted that individuals higher in the need to belong should value the animate object more than individuals who are lower in the need to belong. However, for the inanimate object, the effect of belonging needs on valuation should be attenuated. Further, the extent to which individuals feel engaged in the story narrative should mediate the effect of belonging on valuation for the animate object, but not the inanimate object.

**Method**
In sum, 399 adults ($M_{\text{age}} = 36.4, 42.6\%$ female) were recruited from Amazon’s MTurk. Participants were exposed to the exact same stimuli as in the narrative conditions of study 2. Thus, half the participants read a story about a wooden duck (animistic object), while the other half read a story about a wooden meat tenderizer (inanimate object).

As in study 2, participants in both conditions then indicated how much money they would willing to pay for the item. Additionally, participants were asked the following: how much would you like to own this item? (0 = not at all, 100 = very much so) and, is this item worth keeping, or would you throw it out? (0 = I would definitely throw it out, 100 = definitely worth keeping).

On a separate page, participants responded to three items (adapted from the narrative transportation scale, Green and Brock 2000) that assessed the degree to which they felt connection to and engaged in the story. Participants rated their agreement ($0 = \text{strongly disagree}, 100 = \text{strongly agree}$) with the following statements: While reading about this object, I felt connected to the people that were described; I felt emotionally engaged with the people described when reading about this object; When reading about this object, I could picture myself in the scene of the events described. These

![Figure 2](image-url)

**Figure 2.** Valuation of the animistic versus inanimate object at high and low levels of the NTB scale. NTB = need to belong.
three items formed a reliable scale ($\alpha = .89$). Finally, participants completed the 10-item need for belonging scale (NBS-10; Leary et al. 2013) and provided basic demographic information.

Results

Willingness to Pay. As in study 2, the WTP data were log-transformed. A linear regression analysis with object type (animistic vs. inanimate), the need for belonging and the interaction between object type and belonging as predictors, indicated a significant interaction between object type and the need to belong ($\beta = .20, t = 2.41, p = .017$). When the object was animistic, belonging needs were significantly positively correlated with WTP ($\beta = .25, p < .001$). However, when the object was inanimate, belonging needs were not predictive of WTP ($\beta = -.03, p = .72$, NS).

Composite Measure. The other two measures of valuation were highly correlated ($r = .47, p < .001$) and were averaged to produce a composite measure. The combined measure of valuation was then submitted to an analogous regression analysis with object type (animate vs. inanimate) as a moderator. This analysis indicated a main effect of object type ($\beta = .11, t = 2.18, p = .03$) and a trending interaction between object type and the need to belong ($\beta = .11, t = 1.61, p = .11$). Mirroring the results with WTP, when the object was animistic, belonging needs were significantly positively correlated with valuation ($\beta = .27, p < .001$). However, when the object was inanimate, belonging needs were not predictive of valuation ($\beta = .09, p = .22$).

Mediation Models. The data were then analyzed via a series of bootstrap analyses using PROCESS for SPSS (Hayes 2012). The goal of these analyses was to examine the relationship between the need for belonging, and perceptions of connectedness/engagement.

First, a series of simple mediation models were conducted with belongingness as the independent predictor, connectedness as the mediator and the measures of valuation as the dependent measures. For the animate object, there was a significant (but weak) indirect effect of connectedness for WTP (95% CI = .001 to .13) and a significant indirect effect of connectedness for the composite measure of valuation (95% CI = .22 to 3.46). In contrast, for the inanimate object, identical analyses showed no indirect effect for either WTP (95% CI = -.04 to .09) nor the composite measure (95% CI = -.01 to 2.26). Thus, for the animate object but not the inanimate object, the effect of belongingness on valuation was mediated by participants’ felt connection to the characters in the narrative.

Then, a moderated-mediation model (PROCESS model 5) was conducted which included belongingness as the independent predictor, connectedness as a mediator and object type (animate vs. inanimate) as a moderator. This analysis indicated a significant indirect effect of connectedness on the composite measure of valuation (95% CI = .46 to 3.02), with the full model explaining roughly 24% of the variance ($sr^2 = .243, F(4, 394) = 31.58, p < .0001$; see table 1). An analogous model with WTP as the dependent measure indicated a marginal effect indirect effect of connectedness

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| Conditional direct effect of belonging on valuation at values of the moderator(s) |
|--------------------------------|-----|-----|-----|-----|-----|-----|
| Effect | SE | $t$ | $p$ | LLCI | ULCI |
| Inanimate | .61 | 1.26 | .48 | .629 | $-1.87$ | 3.08 |
| Animate | 3.39 | 1.21 | 2.80 | .005 | 1.01 | 5.78 |

| Indirect effect of belonging on valuation via connection |
|--------------------------------|-----|-----|-----|-----|
| Effect | Boot SE | Boot LLCI | Boot ULCI |
| Connection | 1.36 | .49 | .46 | 2.39 |

Note.—MSE = mean squared error; SE = standard error.
on WTP (90% CI = .004 to .076), with the full model explaining roughly 10% of the variance in scores ($r^2 = .105$, $F(4, 313) = 9.20, p < .0001$).1

**Discussion**

The results from study 3 provided a further explanation of why the effect of narratives on value appears to be more pronounced for objects that resemble living things. Belongingness predicted valuation for the animistic (but not inanimate) objects, which is consistent with the notion that narratives provide some social value (i.e., felt connection) that is enhanced with animate objects. Further supporting this idea, the effect of belonging needs on valuation was mediated by consumers’ felt connection and engagement in the story. In other words, animistic objects more readily encouraged the reader to feel engaged in the story, which in turn, increased the object’s value. This indirect effect and moderation was captured in a moderated-mediation model, which explained a relatively substantial portion of variance (roughly, a quarter) in valuation.

**STUDY 4: ANIMISM AND PRODUCT NARRATIVES**

The goal of study 4 was to test whether an object framed in either an animistic or inanimate way would produce the same pattern of results. The basic design was as follows: all participants read about a car. The car was either presented in an anthropomorphic way (by showing the front, which strongly resembles a face; see fig. 3) or an inanimate way (by showing the rear of the car). The animistic (vs. inanimate) framing was then crossed with the type of text (narrative vs. control). The narrative contained information about the car’s development and the interpersonal events leading up to its release. In contrast, the control text included a great deal of technical information about the car (e.g., the type of engine, relation to the existing product line, etc.). Analogous to study 2, there was a predicted interaction between the types of object (animistic vs. inanimate) and the type of text (narrative vs. control).

**Method**

Participants were a new sample of 441 adults ($M_{age} = 37.9$, 59.4% female) from Amazon’s MTurk. Half of the participants were shown the front of an Austin-Healey car (animistic framing), while the other half were shown the rear of an Austin-Healey (inanimate framing; see fig. 3). Borrowing from Aggarwal and McGill (2007), in the animistic condition, the caption read “Hi! I am Austin,” while in the inanimate condition, the caption read “This is an Austin-Healey car.”

As in the previous experiment, the picture was accompanied by text, which was either a narrative or control text. Both kinds of text were constructed from a website that provided information about the car’s history and development: https://ateupwithmotor.com/model-histories/austin-healey-100-100-6-3000/. The narrative included information about the interpersonal events leading up to its release. A sample of the narrative text read as follows:

In October, Healey entered the prototype in the 1952 International Motor Show. Shortly before the show, Donald Healey had an attack of last-minute second thoughts about the design. Since it was too late to make any more changes, he positioned the prototype on its stand so that the nose pointed toward a row of ornamental shrubbery, making it difficult for spectators to get a close look. But Healey needn’t have worried. Once he was persuaded to move the car into the open, the Healey became the hit of the show.

In contrast, the control text contained much more technical information about the car’s mechanics and how it fit into the existing product line. Both passages were the same length (360 and 364 words, respectively). A sample of the control text read as follows:

An interesting alternative was Austin’s big OHV four. Bored out from 2,199 to 2,660 cc (134 to 162 cu. in.) and fitted with two S.U. carburetors, that engine had powered the A90 Atlantic, Austin’s ill-fated attempt to crack the US market. The new chassis would have semi-unitized construction, using a self-supporting frame to which were welded two large subassemblies comprising most of the inner body structure.

After reading about the car, participants in all conditions then rated the degree to which they valued it using the following scales: Driving this car would make me feel happy; This car is suited to me; This is a great car (1 = strongly dis-

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1. When these same mediation models were run including only the connectedness and emotional engagement items ($r = .88$) as a mediator, all of the models predicting the composite measure of valuation remained significant. The models predicting WTP were no longer significant. However, this likely seems due the greater variation in scores.
agree, 7 = strongly agree); How much would you like to own this car? (0 = not at all, 100 = very much so); What is the most amount of money would you be willing to pay for this car (in US dollars)? (blank text box).

On a final page, participants completed a manipulation check: Please think about the car you read about. In your opinion, to what extent does this car seem “alive”?(1 = not at all, 7 = very much so).

Results
The manipulation check confirmed successful manipulation of object type. Specifically, a 2 (object framing: animate vs. inanimate) x 2 (text type: narrative vs. control) ANOVA of the animacy measure indicated a significant main effect of object framing (F(1, 437) = 8.84, p = .003 (M_{anim} = 4.61, M_{inanim} = 4.07) and no effect of text type and no interaction (both p > .18).

The reported WTP values in this study were highly variable (var = 1.69 x 10^9) and therefore did not constitute a reliable measure. Factor analysis indicated that the measure of “desire to own” did not pattern with the other measures. The remaining measures, however, did form a reliable scale (α = .88) and were standardized (because they were on different scales) and averaged to produce a single measure of valuation. A 2 (object framing: animistic vs. inanimate) x 2 (text type: narrative vs. control) ANOVA indicated a main effect of text type (F(1, 437) = 4.96, p = .03) and a marginal interaction between text type and object framing (F(1, 437) = 3.19, p = .08). When the object was framed in an animistic way, there was a significant difference between the two different types of text (M_{narr} = + .12; M_{ctrl} = −.02, t(221) = 2.95, p = .004), but when the object was framed in an inanimate way, there was no effect of text type (M_{narr} = +.06; M_{ctrl} = +.02, t(224) = .30, p = .76). Further, replicating the pattern of results observed in studies 1 and 2, a contrast analysis indicated that “animistic narrative” condition yielded marginally higher valuation than the other three conditions (t(225.65) = 1.88, p = .06).

Discussion
In this study, the same object was used but was framed in either an animistic way or an inanimate way. Further, excerpts from the same database were taken to construct one narrative that focused more on interpersonal dynamics, while a control passage focused more on technical aspects of the car. As in the previous studies, there was an interaction between the type of object and the type of text. When the object was framed in an animate way, there was a significant effect of narratives (vs. control) on valuation, but when the object was framed in an inanimate way, there was no effect of narrative on valuation.

General Discussion
The present studies find that narratives appear to enhance value more when they are associated with animistic objects compared to when they are connected to inanimate objects. This was shown using converging methodologies: Specifi-
cally, study 1 relied on field data from eBay purchases and documented the pattern when individuals spent their own money in an actual market context. Studies 2 and 3 afforded greater control by decoupling narratives and objects and found the same pattern of results. Study 4 demonstrated this effect using a subtle framing manipulation to portray the same product in a more animistic way. Moreover, the results of study 3 demonstrated that animistic objects enhance value because they more readily encourage people to be engaged in the narrative, which helps to shed light on the underlying psychological process.

This is one of the first investigations of how the value supplied by narratives may vary by the type of object. To date, the existing literature on narratives has tended to focus on what factors are likely to enhance a narrative’s persuasive appeal. As such, research in this area has focused on various features of narratives, features of consumers, and the downstream effects on attitudes and behavior. Some research has examined how narratives may impact purchase decisions when they describe various objects (e.g., Adaval and Wyer 1998; Escalas 2004). However, to date, these studies have not systematically investigated how this may change depending on the type of object that the narrative is paired with.

Therefore, with respect to the existing literature on narratives, the present studies are notable for at least three reasons: First, the results of the Significant Objects project demonstrate the “power” of narratives (i.e., that narratives can dramatically enhance value, even for items that are essentially worthless to begin with). Second, this effect was shown using archival data from an actual market, which represents a unique “real-world” demonstration of this phenomenon. Finally, the moderation by object type shows how differences in the type of object or even subtle differences in framing may enhance the effect of narratives on value.

One area for future research may be to examine how the present effects relate to people’s valuation of art. For example, in the Significant Objects project, the stories were written by well-known authors. This might have made the objects (and accompanying narratives) seem more like art objects or collectibles rather than ordinary artifacts. In turn, it may be that animistic objects elicited higher valuation because they are perceived as less functional and more decorative, which is consistent with the notion of art. In other words, the utilitarian nature of the inanimate objects in some sense lessened the construal of the object as art (cf. Newman and Bloom 2012). While this mechanism alone cannot explain all of the data because similar effects arise even when the author is unknown and the narrative is presented as real (studies 2–4), it seems reasonable that pairing narratives with objects may lead them to be seen in a very different light—perhaps one that is closer to the domain of art than the domain of artifacts. Future work could potentially investigate these similarities further (i.e., between narrative objects, totems, ritual objects, art, etc.) to identify common conceptual boundaries and mechanisms.

A related point involves the extent to which the narratives are perceived as real versus fictional. In the present studies, this factor varied across studies—in study 1 the narratives were clearly fake, in studies 2 and 3 no information was provided, and in study 4 the information was presented as factually true (which it was). Interestingly, similar patterns obtained in all of these cases. That said, it may be that more focused comparisons could reveal some interesting differences, perhaps because fictional stories may more readily encourage the categorization of the object as “art” versus factual narratives.

Besides its theoretical interest, these studies may have real-world relevance to marketers. Indeed, there have been several recent initiatives suggesting that one way for consumers to easily enhance the subjective value of their possessions is to write narratives about them (e.g., the TOTeM project funded by the UK Research Council). The present studies suggest that to enhance object value, such narratives might not even need to be from one’s own history, and could involve complete strangers or perhaps even fictitious events. For example, one could imagine a second-hand store boosting sales merely by creating a backstory for each one of their goods. Moreover, the current results suggest that these effects may be especially pronounced for objects that are animal-like (e.g., cars that resemble faces or bottles that resemble a person’s silhouette). Thus, marketers of retail goods may equally benefit by creating specific messaging about the product or its development that plays into the intuitive connection between animacy and narratives.

It may also be that there are unintended consequences from pairing narratives with products. For example, pairing narratives and products may enhance people’s feeling of connection to the product, as was shown here for animistic objects. However, this focus on connection and warmth could potentially come at the expense of other inferences, such as that the product is “competent” or of high quality (Aaker 1997). It may be interesting in future work to examine whether there are multiple downstream consequences that result from pairing products and narratives besides inferences about subjective value.
More broadly, these results speak to a larger body of research on animism and totem objects. While the link between animism and narratives has been discussed extensively—even in earlier anthropological work—there is little empirical research on this topic. The central argument of early twentieth century scholars such as Sigmund Freud (1913) and Claude Levi-Strauss (1962) was that the use of totem objects was not the result of “primitive” thinking but rather more fundamental aspects of human reasoning. These theorists argued for a set of core beliefs that preceded modern scientific thinking, and relied heavily on animism, symbolism, laws of sympathetic magic, superstition, and ritual. As such, they aimed to document the ways in which this system of thought was manifest in early twentieth century American and European societies.

Scholars in marketing (Belk 1988) and psychology (e.g., Rozin, Millman, and Nemeroff 1986) have discussed seemingly related phenomena, such as beliefs about essential contagion, which have also been documented in actual market contexts (Newman and Bloom 2014; Smith, Newman, and Dhar 2016). Together, these findings point to a broader system of thought based on symbolic associations and magical reasoning. That there are vestiges of this type of thinking that arise in the present day in actual market contexts, is remarkable—a fact that seems to admit of something fundamental about consumer behavior, as well as people’s intuitive understanding of the world around them.

REFERENCES


