

It is well established that differences in manufacturing location can affect consumer preferences through lay inferences about production quality. In this article, the authors take a different approach to this topic by demonstrating how beliefs in contagion (the notion that objects may acquire a special aura or “essence” from their past) influence perceptions of authenticity for everyday consumer products and brands. Specifically, they find that due to a belief in contagion, products from a company’s original manufacturing location are viewed as containing the essence of the brand. In turn, this belief in transferred essence leads consumers to view products from the original factory as more authentic and valuable than identical products made elsewhere. The authors further reveal that consumers who are higher in sensitivity to contagion are more likely to exhibit this effect and that activating the concept of contagion enhances preferences for products made in the brand’s original factory. The authors close by discussing theoretical and practical implications of these findings.

Keywords: authenticity, contagion, branding, country of origin, manufacturing location

Authenticity Is Contagious: Brand Essence and the Original Source of Production

It is common for companies to advertise the manufacturing locations of their products. For example, Fuller’s Brewery of London advertises, “Our brewery’s stood in London, beside the Thames, since 1845.” Hershey’s proclaims that “Hershey, Pa. is where it all started more than 100 years ago, and it’s still where the famous Hershey’s Kisses are made.” New Balance states, “Built in 1945, the Depot Street building is the workplace of almost 400 associates. Each pair of shoes they produce is a proud work of craftsmanship that carries a little bit of the long history that is the town and its people.”¹

These marketing strategies are notable not only because of their focus on origins but also because of the degree to

which they emphasize a physical connection to those beginnings. Indeed, most modern-day organizations bear little resemblance to their early stages. The globalization of business has made it common for products to be manufactured at a location different from where the company was originally founded (Roth and Romeo 1992). Yet this type of physical connection to the brand’s origin seems intuitively appealing, perhaps because it suggests to the consumer that the product still embodies some core (or “essential”) aspect of the brand.

Previous research has examined how differences in a product’s country of origin (COO) shape consumer preferences (e.g., Johansson, Douglas, and Nonaka 1985; Maheswaran 1994; Schooler 1965; Verlegh and Steenkamp 1999). In short, this research indicates that lay theories about general production quality or specialization may lead consumers to view products from one country as superior to identical products manufactured elsewhere. Typically, such effects are discussed in terms of quality inferences and the way consumers evaluate COO alongside additional product attributes (Bilkey and Nes 1982; Peterson and Jolibert 1995).

¹All quotations are taken from print advertisements and official company websites.

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In this article, however, we take a different approach to this topic. Rather than examining the effects of manufacturing location on perceived quality, we instead develop links between COO and the literature streams on authenticity (e.g., Beverland and Farrelly 2010; Grayson and Martinec 2004) and contagion (e.g., Argo, Dahl, and Morales 2006, 2008; Nemeroff and Rozin 1994; Rozin, Millman, and Nemeroff 1986). Contagion (sometimes referred to as “magical contagion”) is the belief that objects can acquire a special aura or essence of a particular source through physical contact. For example, scholars have used contagion to explain why some people are willing to pay large sums of money for relatively ordinary objects that have come into contact with celebrities (Newman, Diesendruck, and Bloom 2011).

The present studies build on this work by demonstrating that contagion also seems to play an important role in consumer preferences based on a product’s origin. We find that due to a belief in contagion, products from the company’s original factory are viewed as more likely to contain the essence of the brand. In turn, this belief in transferred essence leads consumers to view products from the original factory as more authentic and valuable than identical products made elsewhere. We further show that people who are higher in sensitivity to contagion are more likely to exhibit this effect and that activating the concept of contagion enhances preferences for products made in the brand’s original factory.

This work contributes to the existing literature in several respects. With regard to COO effects, the present studies provide evidence for a novel psychological mechanism and demonstrate that origin effects may be driven by a combination of both preexisting beliefs about manufacturing quality and beliefs that are less grounded in reality, such as those related to contagion. Second, the present studies integrate the hypothesized contagion effect with previous research on authenticity to help differentiate it from other sources of value (e.g., expectations about quality, beliefs that the item may be counterfeit) and document the contexts in which these different mechanisms drive authenticity perceptions. Finally, although previous researchers have suggested the role of contagion in the valuation of one-of-a-kind objects (Belk 1988; Grayson and Shulman 2000; Newman and Bloom 2012; Newman, Diesendruck, and Bloom 2011; O’Guinn 1991), the present studies are the first (to our knowledge) to examine how contagion may influence perceptions of authenticity for everyday consumer products and brands.

THE IMPORTANCE OF ORIGIN

Several studies have established that consumers are sensitive to a product’s origin. In general, such research has examined how information about COO influences beliefs about product quality and subsequent purchase intentions (for reviews, see Bilkey and Nes 1982; Obermiller and Spangenberg 1989; Peterson and Jolibert 1995; Verlegh and Steenkamp 1999). For example, a well-documented finding is that people expect products manufactured in more developed countries to be superior to products from less developed countries (Bilkey and Nes 1982; Schooler 1965). Inferences can also draw on specific beliefs regarding the

production strengths of different countries, such as the belief that products from Switzerland are well made (e.g., Johansson, Douglas, and Nonaka 1985). Such expectations seem to function more like stereotypes and may be attenuated with expertise about the particular product category (Maheswaran 1994). Finally, COO effects can include a normative component when consumers use purchases as a means of displaying nationalistic pride (Batra et al. 2000; Gürhan-Canli and Maheswaran 2000; Smith 1990).

Prior research on origin effects has typically examined consumer preferences at the country level (e.g., more- vs. less-developed countries; Germany vs. Italy). In the current studies, in contrast, we examine how manufacturing location is related to perceptions of value for a given brand (Batra et al. 2000). In particular, we examine situations in which two identical products are made by the same brand, but in different locations—for example, a Louis Vuitton handbag from Paris (the company’s original factory) versus an identical handbag from an authorized production facility in California. Our research question focuses on whether products from a brand’s original factory (e.g., the factory in Paris) are preferred to identical products made elsewhere and, if so, why this might be the case.

We hypothesize that preferences for the original factory are importantly related to perceptions of authenticity—in other words, the belief that products from the original factory are in some way “more authentic” than products made elsewhere. However, because all of the products are made by the same brand, concerns about differences in quality or the possibility that the items are counterfeit may be less relevant. Therefore, we suggest that this is a unique example of origin effects in that it provides an opportunity to identify and differentiate new psychological mechanisms, such as contagion, that may underlie origin-based consumer preferences. Next, we discuss the psychological mechanisms that may lead consumers to believe that products from the original factory are more authentic (and in turn, more valuable) than identical products manufactured elsewhere.

AUTHENTICITY AND PHYSICAL CONNECTIONS

It is widely acknowledged that authenticity is a critical dimension for consumers that can be assessed along dimensions such as production methods, product styling, connections to a particular location, and firm values (e.g., Belk and Costa 1998; Beverland 2005, 2006; Beverland and Farrelly 2010; Deshpandé 2010; Grayson and Martinec 2004; Grayson and Shulman 2000; McCracken 1986; Peterson 2005; Wang 1999). Although some researchers have suggested that the term “authenticity” is so broad that it should be abandoned (Reisinger and Steiner 2006), in general, there is agreement that authenticity describes a verification process—the evaluation of some truth or fact. As Beverland and Farrelly (2010, p. 839) write, “despite the multiplicity of terms and interpretations applied to authenticity, ultimately what is consistent across the literature is that authenticity encapsulates what is genuine, real, and/or true.” In other words, when we ask whether an item is authentic, we really mean, “Is it true with respect to some property or dimension?”

In the present studies, we are interested in the dimension of “origin” and the psychological mechanisms that may lead

consumers to view products from a brand's original manufacturing location as more authentic than identical products made elsewhere. We consider three potential mechanisms: quality expectations, perceived evidence, and contagion. As we outline subsequently, these three mechanisms draw on somewhat different notions of the term "authenticity," but all stem from the basic idea that physical connections to a particular location play a key role in how people evaluate authenticity and value.

One way manufacturing location may influence perceptions of authenticity is by verifying that the product meets certain quality standards associated with the brand. For example, a consumer might wonder whether chocolates are "authentic Godiva chocolates" in the sense that chocolates from certain locations may be perceived as more consistent with Godiva's production standards. Consumers may believe that products from the brand's original factory are made with better materials or that the manufacturers possess greater skill or knowledge. Indeed, Beverland (2005, 2006) interviewed wine consumers and found that the location of the actual vineyard is important to authenticity judgments because consumers expect adherence certain levels of quality for that producer. Although this mechanism is clearly related to the notion that COO serves as a signal for product quality, it may also incorporate perceptions of authenticity because it involves an assessment of whether the product's quality is consistent with expectations for that particular brand.

A second potential mechanism is that products from the original manufacturing location may offer consumers a form of physical "proof" that the item is not counterfeit (Belk 1990; Grayson and Martinec 2004; Grayson and Shulman 2000; O'Guinn 1991). As Grayson and Martinec (2004, p. 302) note, connections to a particular person or location can "provide consumers with a sense of hard evidence and unequivocal verification." Typically, this concept is discussed in the context of one-of-a-kind objects, such as historical artifacts or celebrity memorabilia. However, it may also apply to the domain of consumer products. For example, products that can be called "Levi's jeans" are jeans that can be physically traced back to an authorized Levi's manufacturer or retailer. In the context of everyday consumer products, however, we believe that the notion of perceived evidence may be more strongly related to whether the products are all officially made by the same brand rather than to the precise location of the factory.

A third potential mechanism is rooted in the concept of contagion (Belk 1988; Bloom 2004, 2010; Frazer 1890; Nemeroff and Rozin 1994; Newman, Diesendruck, and Bloom 2011; Rozin and Wolf 2008). Contagion is commonly discussed as a form of magical thinking in which people believe that objects can acquire special qualities from their past. For example, a neutral item such as a sweater may become contaminated with the "essence" of its previous owner, and if that person is famous, the sweater may become much more valuable as a result (Newman, Diesendruck, and Bloom 2011). Importantly, this transfer of essence is believed to occur through physical contact, but it may persist even after the person and item are no longer touching—a principle referred to as "once in contact, always in contact" (Rozin, Millman, Nemeroff 1986). Thus,

according to a contagion model, certain items may become desirable if consumers believe that they are imbued with the essence of something valued.² In the context of the current studies, this mechanism would imply that people view products from the original factory as more authentic because they are thought to have acquired (or "absorbed") the essence of the brand in a way that products manufactured elsewhere have not.

In summary, previous research has identified that physical connections to the origin are important, and there are three potential mechanisms through which the original production source may influence perceptions of authenticity and value: quality expectations, perceived evidence, and contagion. Our first two experiments directly compare these mechanisms to establish which of them best explains consumer preferences for the brand's original factory. This study addresses the practical question of why a consumer might report a higher willingness to pay (WTP) for an item from the original manufacturing location than an identical product made elsewhere.

However, the present studies also focus on the contagion mechanism in particular because it has the potential to address several important gaps in the literature. First, the application of contagion to the COO literature is completely novel (to our knowledge), and therefore, it potentially broadens the current understanding of origin-based consumer preferences.

Second, although previous researchers have suggested the role of contagion in considerations of authenticity, they have typically discussed this issue in the context of one-of-a-kind objects, such as celebrity memorabilia or artwork (Belk 1988; Grayson and Shulman 2000; Newman and Bloom 2012; Newman, Diesendruck, and Bloom 2011; O'Guinn 1991). Some studies in the consumer literature stream have examined how contagion may affect purchase decisions (Argo, Dahl, and Morales 2006, 2008)—for example, the finding that disgusting products can "taint" nearby items (Morales and Fitzsimmons 2007)—but this research stream has yet to examine how contagion is related to perceptions of authenticity for brands. Therefore, the present research is also novel in that it examines how contagion may influence perceptions of authenticity for everyday consumer products and whether contagion effects may extend beyond contact with positive or negative people or disgusting products.

Third, a broader goal of the present research involves the use of experimental methods. The majority of the research on authenticity has employed more qualitative methods, such as structured interviews (e.g., Belk and Costa 1998; Beverland 2005, 2006; O'Guinn 1991). Although this approach has yielded many insights, only a few studies have experimentally manipulated factors hypothesized to be rele-

²Rozin, Millman, and Nemeroff (1986) distinguish two dimensions of contagion. The first dimension refers to the "transferred essence" and describes the process of an object acquiring and retaining some special quality or essence. The second dimension refers to the second-order effects that the essence may exert on others that come into contact with the contaminated item—for example, playing better golf as a result of using a famous golfer's putter (Lee et al. 2011). The current studies focus on the first dimension of transferred essence in an effort to better understand how contact with the original factory may lead to the judgment that certain products are more authentic.

vant to authenticity judgments (e.g., Grayson and Shulman 2000, Study 2). As a result, it may be difficult to disentangle the contexts in which authenticity is a separate construct rather than a post hoc rationalization used to justify other preferences. For example, consumers may prefer the original factory for purely associative reasons but may use authenticity as an explanation for that preference. We address this issue through several methods—that is, by directly manipulating factors hypothesized to be relevant to authenticity judgments, testing specific mediation models, and using converging experimental designs across studies.

OVERVIEW OF EXPERIMENTS

The goal of Experiment 1 is to empirically distinguish the psychological mechanisms outlined previously (i.e., quality expectations, perceived evidence, and contagion). In short, we hypothesize that differences in manufacturing location should be most strongly related to contagion beliefs, which in turn should drive differences in perceptions of authenticity and value. However, to integrate this phenomenon with previous research on authenticity, we also manipulate factors hypothesized to be relevant to perceived evidence to determine the conditions under which the mechanisms of contagion versus perceived evidence are more or less relevant. Experiment 2 extends these initial findings and examines the extent to which preferences for the original source of production are tied to the original factory per se (factory of origin; FOO) versus associations between the brand and a particular country or city (COO). Experiment 3 examines the processes underlying the contagion mechanism more closely by testing whether people who are more sensitive to contagion show a stronger preference for items manufactured in the original factory. Experiment 4 provides converging evidence for the role of contagion by demonstrating that activating the concept of contagion (Mishra 2009; Newman, Diesendruck, and Bloom 2011) causes participants to show a greater effect of the manufacturing location on ratings of authenticity. Finally, Experiment 5 examines whether valuation is aligned with the default inference that a brand's products are manufactured in the original production facility.

EXPERIMENT 1: CONTAGION VERSUS PERCEIVED EVIDENCE

We hypothesize that preferences for the original source of production are influenced by contagion beliefs. However, other research on authenticity has suggested somewhat different (though not mutually exclusive) mechanisms based on quality expectations and perceived evidence. Therefore, the goal of the first study is to distinguish these mechanisms and identify the contexts in which they may be more or less relevant.

It is important to note that operationalizing beliefs related to contagion and perceived evidence presents some challenges. With respect to contagion, previous research has suggested that beliefs about essence are likely to be vague and may function more as conceptual placeholders rather than actual physical entities (see Gelman 2003; Medin and Ortony 1989). Indeed, the way previous research has discussed essence for brands is consistent with this placeholder notion. For example, Beverland and Farrelly (2010, p. 839) write, "There is widespread agreement that authenticity is a

socially constructed interpretation of the essence of what is observed rather than properties inherent in an object." Therefore, Experiment 1 tests whether beliefs about "transferred essence" explain preferences for the original source of production. However, we remain agnostic about exactly *what* participants think that essence might be, as that seems to vary dramatically on the basis of individual knowledge and contextual factors.

Second, prior research has (to our knowledge) only examined the concept of perceived evidence as it pertains to one-of-a-kind items and has not explored this concept in the domain of consumer products. Thus, for the current studies, it was necessary to operationalize this construct in a way that made sense for brands. Intuitively, there seems to be a critical distinction between authenticity as it pertains to the difference between "authorized" versus "unauthorized" (i.e., counterfeit) products and as it pertains to products that are all officially made by the same brand but manufactured in different locations. Differences in the former case seem to be more closely tied to notions of perceived evidence (gaining proof or verification that the object is what it purports to be—i.e., that it really is from that brand), whereas differences in latter case seem to be more closely tied to differences in contagion (i.e., does this product embody the essence of the brand?).

To distinguish these concepts empirically, in Experiment 1, we manipulate both manufacturing location (original factory vs. not) and the sales context (sold by the authorized retailer vs. an unauthorized retailer). We hypothesize that any differences in manufacturing location should correspond to differences in beliefs about transferred essence, whereas differences in the retailer should correspond to differences in perceived evidence. In turn, we predict that both these dimensions should influence judgments of authenticity and subsequent value. Thus, we posit two distinct serial mediation models (see Figure 1) whereby manipulations of factory location (original vs. not) should influence authenticity and valuation through ratings related to transferred essence (contagion), whereas manipulations of the retailer (authorized vs. unauthorized) should influence authenticity and valuation through ratings of perceived evidence.

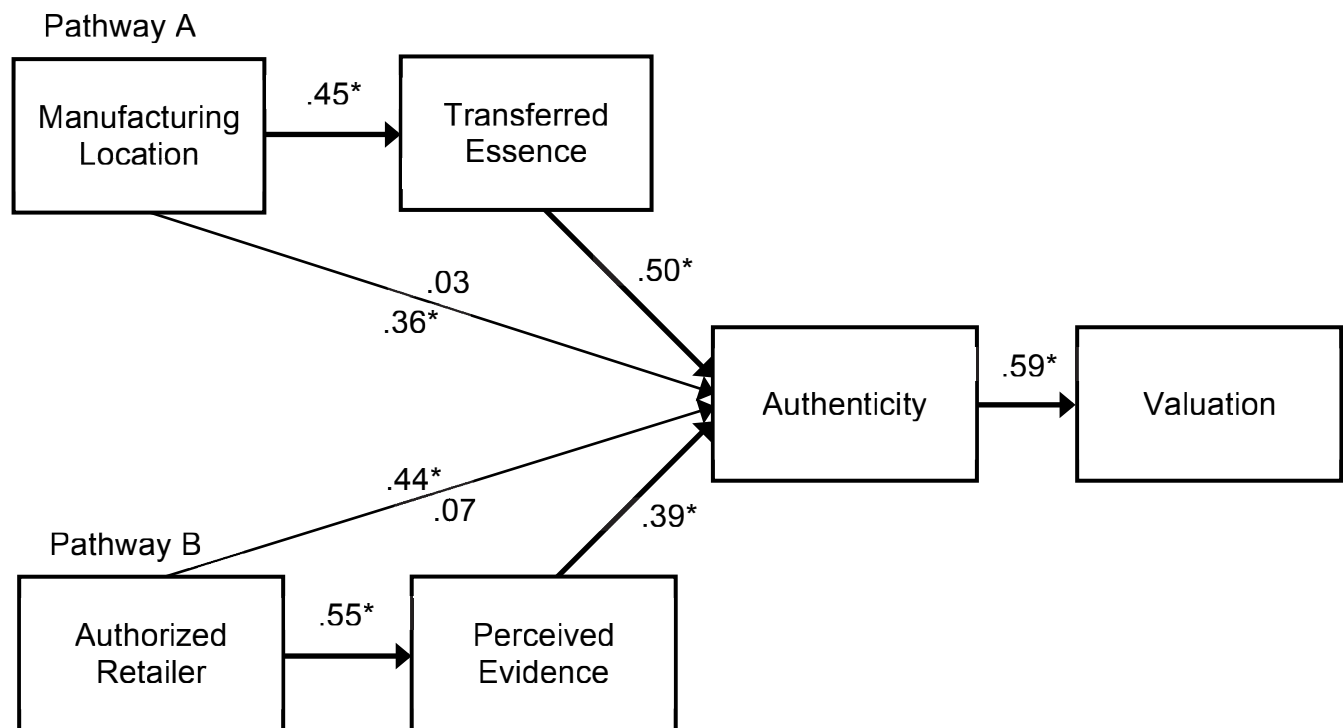
Method

Participants were 253 adults ($M_{\text{age}} = 35.7$ years, 56% female) who were recruited from a Web-based survey panel and compensated with gift certificates. Participants were randomly assigned to one of four conditions in a 2 (original factory vs. other factory) \times 2 (authorized retailer vs. unauthorized retailer) between-subjects design.

Participants first read about Levi Strauss & Co.³ Specifically, they read that the company was founded in San Francisco in 1853, created the first blue jeans in 1873, and built its first factory (in San Francisco) in 1906. Participants also read that Levi's currently has "hundreds of factories located in over 35 countries throughout the world."

³We chose the Levi's brand for two reasons. First, we conducted a free-response pilot study that asked participants to list consumer domains and brands for which authenticity was a factor. The most frequently listed consumer domain was clothing, and the most frequently listed clothing brand was Levi's. Second, Levi's has several manufacturing locations around the world and is sold through both authorized and unauthorized retailers.

Figure 1
MEDIATION MODELS TESTED IN EXPERIMENT 1



* $p < .001$.

Notes: Pathway A tests the influence of contagion beliefs; Pathway B tests the influence of perceived evidence.

On a separate page, participants were then shown a picture of a pair of Levi's jeans. To manipulate manufacturing location, half the participants were told that the jeans were manufactured in the "original factory (built in 1906), located on Valencia St. in San Francisco, CA," and the other half were told that the jeans were manufactured in a "newer factory (built in 1996), located outside of the United States." To manipulate the retailer, half the participants were asked to imagine that they were shopping online at the authorized retailer (the official Levi's website), while the other half were asked to imagine that they were shopping online at an unauthorized retailer (a third-party website). Participants then completed a manipulation check in which they were asked to recall the information about Levi's as well as the manufacturing location (original vs. not) and the retailer (authorized vs. unauthorized). An additional 23 participants were tested but failed this manipulation check; therefore, we do not include them in subsequent analyses.

Following the information about manufacturing location and the retailer, all participants completed five sets of dependent measures: valuation, authenticity, transferred essence (contagion), perceived evidence, and quality. Each set of dependent measures appeared on a different page so as not to potentially contaminate responses across items. Measures of valuation always appeared first. However, the order in which the other measures appeared was randomized across participants.

For the measures of valuation, participants responded to the following items: "Would you be willing to pay a pre-

mium in order to own this particular pair of jeans?" (1 = "would not pay a premium," and 9 = "would pay a premium"); "How much would you be willing to pay for this particular pair of jeans relative to the average pair of Levi's jeans?" (1 = "substantially less," and 9 = "substantially more"); and "How likely would you be to purchase this particular pair of jeans?" (1 = "not at all," and 9 = "very likely"). These items formed a reliable scale ($\alpha = .82$).

To assess perceptions of authenticity, participants responded to the following: "When you think about what it means to be truly authentic Levi's jeans, you would have to say that this product is..." (1 = "inauthentic," and 9 = "authentic"). For the measures of transferred essence, participants rated their agreement with the following statements: "These jeans contain the true essence of the Levi's brand"; "These jeans reflect the heritage of the Levi's brand"; and "These jeans embody the pedigree and history of the Levi's brand" (1 = "strongly disagree," and 9 = "strongly agree"; $\alpha = .98$). For the measures of perceived evidence, participants rated their agreement with the following statements: "There is evidence of a connection between these jeans and the Levi's brand"; "In a factual sense, these are Levi's jeans"; and "It is accurate to say that these are a pair of Levi's jeans" (1 = "strongly disagree," and 9 = "strongly agree"; $\alpha = .94$). Finally, participants rated the expected quality of the jeans along dimensions of durability, materials, craftsmanship, and overall quality (1 = "low," and 9 = "high"; $\alpha = .98$).

Results

We first conducted a $2 \times 2 \times 5$ repeated measures analysis of variance (ANOVA), with manufacturing location (original vs. new) and retailer (authorized vs. unauthorized) as between-subjects factors and the five dependent measures (valuation, authenticity, transferred essence, perceived evidence, and quality) as within-subject factors. This analysis indicated a significant main effect of manufacturing location ($F(1, 246) = 65.49, p < .001$) and retailer ($F(1, 246) = 88.53, p < .001$) but no interaction between manufacturing location and retailer ($F(5, 246) = .43, p = .51$). In addition, there was a significant main effect of the type of measure ($F(3.84, 943.36) = 147.65, p < .001$) and, more importantly, significant two-way interactions between both manufacturing location (original vs. new) and type of measure ($F(3.84, 943.36) = 11.91, p < .001$) and retailer (authorized vs. unauthorized) and type of measure ($F(3.84, 943.36) = 19.90, p < .001$).

Table 1 provides descriptive statistics as well as simple effect comparisons for this study. The effects of factory and retailer were significant at $p < .001$ for all measures, so our primary focus was whether the effects were larger in some cases than others among the potential mechanisms of transferred essence (contagion), perceived evidence, and quality. Indeed, as we hypothesized, the effect of manufacturing location (original vs. new) was greater on ratings of transferred essence ($M_{\text{original}} = 6.43, M_{\text{new}} = 4.13; F(1, 242) = 79.10, p < .001, \text{partial } \eta^2 = .24$) than on ratings of perceived evidence ($M_{\text{original}} = 6.81, M_{\text{new}} = 5.87; F(1, 242) = 14.12, p < .001, \text{partial } \eta^2 = .05$) or quality ($M_{\text{original}} = 6.66, M_{\text{new}} = 5.29; F(1, 242) = 35.89, p < .001, \text{partial } \eta^2 = .13$). Conversely, the effect of retailer (authorized vs. unauthorized) was greater on ratings of perceived evidence ($M_{\text{authorized}} = 7.69, M_{\text{unauthorized}} = 4.13; F(1, 242) = 119.57, p < .001, \text{partial } \eta^2 = .33$) than on ratings of transferred essence ($M_{\text{authorized}} = 6.11, M_{\text{unauthorized}} = 4.45; F(1, 242) = 42.74, p < .001, \text{partial } \eta^2 = .15$) or quality ($M_{\text{official}} = 6.69, M_{\text{unofficial}} = 5.26; F(1, 242) = 40.72, p < .001, \text{partial } \eta^2 = .14$). For all analyses, there was no significant interaction between manufacturing location and retailer (all $F_s < 1$), and participant gender did not interact with the results in any way.

We then conducted a series of bootstrap analyses (Preacher and Hayes 2008) to examine the specific mediating roles of each of the factors. We first established that authenticity mediated both the effect of manufacturing location (95% confidence interval [CI] = [.45, 1.18]) and the retailer (95% CI = [.58, 1.37]) on valuation. Next, we conducted two multiple mediation models to examine the rela-

tive indirect effects of the three mediators (transferred essence, perceived evidence, and quality) on ratings of authenticity. For the effect of manufacturing location, we observed a large indirect effect of transferred essence (95% CI = [.39, 1.55]), a smaller indirect effect of perceived evidence (95% CI = [.16, .88]), and no effect of quality (95% CI = [-.05, .72]). Conversely, for the effect of retailer, we observed a large indirect effect of perceived evidence (95% CI = [.57, 1.69]), a smaller indirect effect of transferred essence (95% CI = [.28, 1.19]), and no effect of quality (95% CI = [-.06, .69]).

In the second set of analyses, we tested the specific predicted pathway related to manufacturing location (manufacturing location \rightarrow transferred essence \rightarrow authenticity \rightarrow valuation; Figure 1, Pathway A), controlling for the effect of retailer, the interaction effect, ratings of perceived evidence, and quality. The results indicated that the full serial mediation model was significant with a 95% CI excluding zero (.01, .14). Furthermore, a similar model replacing transferred essence with ratings of perceived evidence (manufacturing location \rightarrow evidence \rightarrow authenticity \rightarrow valuation), controlling for retailer, the interaction, transferred essence, and quality was not significant (95% CI = [-.02, .04]), nor was a similar model replacing transferred essence with ratings of quality (manufacturing location \rightarrow quality \rightarrow authenticity \rightarrow valuation) controlling for retailer, the interaction, transferred essence, and perceived evidence (95% CI = [-.003, .03]).

Next, we tested the specific predicted pathway related to the retailer (retailer \rightarrow perceived evidence \rightarrow authenticity \rightarrow valuation; Figure 1, Pathway B) using the same process of controlling for the other factors. Our results indicated that the full serial mediation model was significant (95% CI = [.01, .20]), but a similar model replacing perceived evidence with ratings of transferred essence (retailer \rightarrow transferred essence \rightarrow authenticity \rightarrow valuation) was not significant (95% CI = [-.05, .01]), nor was a model replacing perceived evidence with ratings of quality (manufacturing location \rightarrow quality \rightarrow authenticity \rightarrow valuation; 95% CI = [-.01, .03]).

Finally, presenting the measures of valuation before the other measures provided a conservative test of our hypothesis because in that case, it is impossible for the other measures to “suggest” a causal pathway to the main dependent measure of valuation. However, it may be that this design instead gave rise to an alternative causal model—namely, that participants valued the original (vs. new) factory or authorized (vs. unauthorized) retailer more (for some other reason) and then tailored their responses to subsequent

Table 1
AVERAGE RATINGS ACROSS THE DIFFERENT MEASURES OF EXPERIMENT 1

	Effect of Factory		Effect of Retailer		Authorized Retailer		Unauthorized Retailer	
	M_{diff}	Partial η^2	M_{diff}	Partial η^2	Original Location	New Location	Original Location	New Location
Valuation	1.24*	.13	.85*	.07	4.87 (.22)	3.69 (.20)	4.04 (.21)	2.66 (.22)
Authenticity	1.94*	.19	2.32*	.24	8.17 (.29)	6.16 (.27)	5.80 (.27)	3.66 (.28)
Evidence	.79*	.05	2.65*	.33	7.96 (.26)	7.42 (.24)	5.67 (.25)	4.31 (.26)
Essence	2.21*	.24	1.53*	.15	7.29 (.27)	4.97 (.25)	5.57 (.25)	3.30 (.26)
Quality	1.29*	.13	1.35*	.14	7.34 (.24)	6.09 (.22)	6.00 (.23)	4.49 (.23)

* $p < .001$.

Notes: Standard errors in parentheses.

items accordingly. This alternative model predicts that measures of valuation should mediate the effects of manufacturing location and retailer on ratings of authenticity, controlling for the other mechanisms. To test this possibility, we ran two subsequent analyses: manufacturing location \rightarrow authenticity \rightarrow valuation and retailer \rightarrow valuation \rightarrow authenticity. Neither of these models was statistically significant (95% CI = $[-.01, .16]$ and 95% CI = $[-.11, .05]$, respectively), indicating that this alternative model does not explain the results of this study.

Discussion

In this experiment, we isolated the mechanisms of contagion (transferred essence) and perceived evidence and found that preferences for the original source of production are mediated by the belief that those products contain the essence of the brand. In contrast, the effects of the retailer (authorized vs. unauthorized) on ratings of authenticity and value were mediated by the mechanism of perceived evidence.

This result is important for several reasons. First, it helps dissociate the current effects of manufacturing location from previous research on COO effects. Here, we find that the mechanisms of contagion and perceived evidence operate independently from quality inferences. Indeed, in this study quality did not uniquely predict authenticity judgments, which is important considering that the majority of the previous research on COO has focused on quality inferences.

Second, these results also help dissociate the current findings from previous research on authenticity. Specifically, we find that manipulations of manufacturing location affect judgments of authenticity and value through perceptions of transferred essence but not through measures of perceived evidence or quality. In other words, although perceived evidence does seem to influence authenticity judgments, that effect is independent from the hypothesized relationships between manufacturing location, contagion, and authenticity. In contrast, perceived evidence was responsible for explaining the effect of the retailer (authorized vs. unauthorized). Thus, we were able to empirically distinguish factors influencing perceptions of transferred essence (contagion) and those influencing perceptions of perceived evidence. This dissociation is likely due to the different notions of “authenticity” that may describe beliefs about whether the items are counterfeit versus situations in which the brand officially produces both products but in different locations. This (to our knowledge) is the first time these constructs have been independently manipulated to reveal contrasting effects.

EXPERIMENT 2: COO VERSUS FOO

The results of Experiment 1 indicate that consumers believe that products made in the original factory possess the essence of the brand more so than products made elsewhere, which in turn causes them to be perceived as more authentic and desirable. Although this pattern of results is consistent with the concept of contagion, it is also consistent with a somewhat different proposal. Perhaps after reading about the Levi's brand and the location of the original factory, participants may have strongly associated Levi's with San Francisco or the United States. In turn, they may have interpreted the questions about essence and authenticity as referring to this association.

Of course, it is difficult to believe that this purely associative mechanism could result in the rather nuanced mediation patterns that we observed in Experiment 1. Nonetheless, the goal of Experiment 2 is to address this possibility by comparing the effect of the original factory (FOO) with the effect of a particular location (COO). To do so, we included a third condition in which the factory remained in the same city (e.g., San Francisco) but was, itself, new. Therefore, Experiment 2 compares three types of manufacturing locations: the original long-standing factory, a new factory located in a different country, and a new factory located in the same city as the original factory. In addition to addressing the aforementioned alternative explanation, this study is potentially important in that an effect of the original factory (FOO) that is distinct from COO would lend further support to the unique predictions made by contagion—that is, that consumers should value products that have come into contact with the brand's physical origin (rather than just the same geographic region).

Method

We recruited a new group of 328 participants ($M_{\text{age}} = 36.1$ years, 62% female) from the same Web-based survey panel as Experiment 1. An additional 16 participants were tested but failed a comprehension check; therefore, we do not include them in subsequent analyses.

As in Experiment 1, participants read about Levi's and then responded to several measures regarding a particular pair of jeans. We manipulated the location where those jeans were manufactured between participants. One group of participants was told that the jeans were manufactured in the “original factory (built in 1906), located on Valencia St. in San Francisco, CA.” A second group was told that the jeans were manufactured in a “newer factory (built in 1996), located outside of the United States,” and a third group was told that the jeans were manufactured in a “newer factory (built in 1996), located in the suburbs of San Francisco.” In addition, half the participants in each condition were told that “due to a recent change in labor laws, the cost to produce this pair of jeans has increased relative to previous years.” We included this second factor because we wanted to manipulate information that might influence consumer preferences (e.g., WTP more for an item that costs more to produce) but would not change inferences about authenticity or quality (Amir, Ariely, and Carmon 2008). However, as we report subsequently, the information about labor costs did not affect any of the dependent measures, and therefore we focus on the differences in manufacturing location as our primary comparison across conditions.

Following the information about manufacturing location, all participants completed a nearly identical set of dependent measures as in Experiment 1.⁴ The differences between the measures in Experiments 1 and 2 were as follows: For the measures of valuation, participants in this study also indicated their WTP for the jeans and were told that “the price of a pair of Levi's jeans ranges anywhere from \$40 to \$160.” For the measures of transferred essence ($\alpha = .94$), participants rated their agreement with the same three state-

⁴As in the previous study, measures of valuation always appeared first. However, the order in which the other measures appeared was randomized across participants.

ments as Experiment 1 and one additional item: “There is some special quality of the Levi’s brand that these jeans embody” (1 = “strongly disagree,” and 9 = “strongly agree”). For the measures of perceived evidence, participants rated their agreement with the following statements: “In a factual sense, these are Levi’s jeans”; “It is legitimate to sell this product in a retail store as a pair of Levi’s jeans”; “These jeans are not a knock-off or replica”; and “It is accurate to say that these are a pair of Levi’s jeans” ($\alpha = .88$). The authenticity item and the items related to quality ($\alpha = .95$) were the same as in Experiment 1.

Results

We first conducted a $3 \times 2 \times 5$ repeated measures ANOVA, with manufacturing location (original factory vs. foreign factory vs. new factory, same city) and manufacturing cost (no information vs. greater) as between-subjects factors and the five dependent measures (valuation, authenticity, transferred essence, perceived evidence, and quality) as within-subject factors. This analysis indicated a significant main effect of manufacturing location ($F(2, 318) = 30.41, p < .001$) but no main effect of manufacturing cost ($F(1, 318) = 1.13, p = .29$) and no interaction between manufacturing location and manufacturing cost ($F(2, 318) = 1.00, p = .37$). In addition, there was a significant main effect of the type of measure ($F(3.19, 1,012.81) = 357.49, p < .001$) and, more importantly, a significant two-way interaction between manufacturing location (original vs. new) and the type of measure ($F(6.37, 1,012.81) = 8.31, p < .001$). The variable of manufacturing cost did not interact with any of the other variables, and therefore, we did not include it in subsequent analyses.

Table 2 provides descriptive statistics for this study. Participants were willing to pay significantly more for the jeans made in the original factory than for the jeans produced in either the foreign factory or the newer factory located in the same city as the original. Similarly, for the other measures of valuation, participants valued the jeans made in the original factory more than the jeans manufactured in either the foreign factory or the newer factory. For both of these measures, there was no significant difference in valuation between the foreign versus new factory locations ($ps = .39$ and $.09$, respectively).

The measures of authenticity, transferred essence, and perceived evidence all showed roughly the same pattern, in which ratings were highest for the original factory, followed by the new factory, and then the foreign factory. It is impor-

tant to note, however, that descriptively, the effects on authenticity and transferred essence were larger than the effects on perceived evidence. The pattern for ratings of quality was somewhat different. Here, participants expected the quality to be roughly the same for the jeans made in the original factory versus the newer factory located in the same city as the original. Moreover, both of these conditions were rated as significantly higher in quality than the foreign factory location. For all analyses, participant gender did not interact with any of the other factors.

Next, we conducted a series of bootstrap analyses (Preacher and Hayes 2008) to examine the specific mediating roles of each of the factors. Specifically, we independently examined the effects of COO (original factory vs. foreign factory) and FOO (original factory vs. new factory, same city as original). To create a combined measure of valuation, we converted the four measures to z-scores and averaged them to produce a single measure of valuation ($\alpha = .78$).⁵

We first established that authenticity mediated both the effect of COO (95% CI = [.005, .23]) and FOO (95% CI = [.03, .17]) on valuation. Next, we conducted two multiple mediation models to examine the relative indirect effects of the three mediators (transferred essence, perceived evidence, and quality) on ratings of authenticity. For the effect of COO, we observed a large indirect effect of transferred essence (95% CI = [1.01, 1.95]), a smaller indirect effect of perceived evidence (95% CI = [.05, .38]), and no effect of quality (95% CI = [−.06, .38]). For the effect of FOO, we observed a large indirect effect of transferred essence (95% CI = [.37, .99]) but no effect of perceived evidence (95% CI = [−.02, .24]), or quality (95% CI = [−.03, .09]).

In the second set of analyses, we tested the specific predicted pathway (COO → transferred essence → authenticity → valuation), controlling for ratings of perceived evidence and quality. The results indicated that in this analysis, authenticity did not contribute to the model and ratings of transferred essence alone mediated the effect (95% CI = [.01, .23]). Furthermore, a similar model replacing transferred essence with ratings of perceived evidence (COO → evidence → authenticity → valuation), controlling for transferred essence and quality, was not significant (95% CI = [−.01, .001]), nor was a simplified model (COO → evidence → valuation; 95% CI = [−.07, .01]). In addition, a similar model replacing transferred essence with ratings of quality

⁵This measure did not include four WTP values that were more than 3.5 standard deviations away from the group mean ($M = \$48.36$).

Table 2
AVERAGE RATINGS ACROSS THE MEASURES OF EXPERIMENT 2

	Original Factory	Foreign Factory	New Factory, Same City	Original Factory Versus Foreign Factory (COO)		Original Factory Versus Same City (FOO)	
				<i>t</i>	<i>p</i>	<i>t</i>	<i>p</i>
Valuation	4.25 (.17)	3.49 (.15)	3.80 (.16)	3.26	.001	1.91	.058
WTP	\$55.32 (3.52)	\$44.06 (2.07)	\$46.47 (1.85)	2.45	.015	2.01	.046
Authenticity	7.70 (.15)	5.51 (.24)	6.65 (.19)	7.79	<.001	4.33	<.001
Evidence	8.00 (.13)	7.22 (.17)	7.67 (.17)	3.75	<.001	1.59	.114
Essence	7.22 (.15)	5.08 (.20)	6.16 (.17)	8.61	<.001	4.56	<.001
Quality	7.09 (.14)	6.07 (.18)	7.02 (.12)	4.48	<.001	.36	.719

Notes: Standard errors are in parentheses.

(COO → quality → authenticity → valuation) controlling for ratings of transferred essence and perceived evidence was also not significant (95% CI = [−.001, .01]). However, the simplified model (COO → quality → valuation) was significant (95% CI = [−.13, −.009]), indicating that quality did mediate the effect of COO on valuation, but not through measures of authenticity.

Next, we tested the specific predicted pathway related to FOO (FOO → transferred essence → authenticity → valuation), controlling for ratings of perceived evidence and quality. The results indicated that in this analysis, authenticity did not contribute to the model and ratings of transferred essence alone mediated the effect (95% CI = [.003, .17]). Furthermore, a similar model replacing transferred essence with ratings of perceived evidence (FOO → evidence → authenticity → valuation), controlling for transferred essence and quality, was not significant (95% CI = [−.007, .006]), nor was the simplified model (FOO → evidence → valuation; 95% CI = [−.02, .02]). Moreover, a similar model replacing transferred essence with ratings of quality (FOO → quality → authenticity → valuation) controlling for ratings of transferred essence and perceived evidence was also not significant (95% CI = [−.01, .002]), nor was the simplified model (FOO → quality → valuation; 95% CI = [−.06, .03]).

Finally, we again examined the notion that the measures of value changed subsequent responses by testing the alternative model that measures of valuation mediate the effects of COO or FOO on ratings of authenticity, controlling for the other mechanisms. To test this, we ran two subsequent analyses (COO → authenticity → valuation and FOO → valuation → authenticity). Neither of these models were statistically significant (95% CI = [−.14, .006] and 95% CI = [−.01, .06], respectively), indicating that this alternative model does not explain the results of this study.

Discussion

This study replicated and extended the effects observed in Experiment 1. First, we found that consumers do seem to value the “original factory” and distinguish it from a newer factory located in the same city as the original. This finding helps address the alternative explanation that these effects are driven by an association between the brand and a particular geographic location. In addition, this finding is consistent with the predictions made by contagion—that consumers should value contact with a particular physical location rather than just the same geographic region. Finally, we again found that consumers distinguish measures related to transferred essence, perceived evidence, and quality. Although differences in manufacturing location affect all of these measures, as in Experiment 1, only measures of transferred essence (contagion) mediated the effect of the original manufacturing location on perceptions of authenticity and value.

When we examined the more complex serial mediation models, in which differences in manufacturing location caused differences in valuation through beliefs about transferred essence and authenticity, we found that ratings of authenticity did not contribute to the model and only ratings of transferred essence mediated. In other words, in Experiment 2, the ratings of transferred essence were very highly correlated with the ratings of authenticity—so much so that only ratings of transferred essence uniquely predicted valuation. When we contrast this result with the results of Experi-

ment 1 (which the more complex model obtained), it is actually quite interpretable given that Experiment 1 crossed two different factors (manufacturing location and authorized vs. unauthorized retailer) that affected authenticity judgments, whereas Experiment 2 only manipulated manufacturing location. Therefore, in this study, “authenticity” only referred to one dimension (based on differences in manufacturing location), whereas in Experiment 1, it referred to two dimensions: whether the products were counterfeit and whether the products were from the original manufacturing location.

EXPERIMENT 3: SENSITIVITY TO CONTAGION

The results from Experiments 1 and 2 are consistent with the predictions made by contagion—namely, that products made in the original factory are viewed as embodying the essence of brand to a greater extent than products manufactured elsewhere. The goal of Experiment 3 is to examine the mechanism of contagion more closely.

Prior research has established that people differ in their degree of sensitivity to contagion (e.g., Haidt, McCauley, and Rozin 1994; Newman, Diesendruck, and Bloom; Rozin, Fallon, and Mandell 1984; Rozin and Wolf 2008). For example, previous research has demonstrated that sensitivity to contagion predicts beliefs about sacred land (Rozin and Wolf 2008) and preferences for celebrity memorabilia (Newman, Diesendruck, and Bloom 2011). Accordingly, we predicted that individual differences in contagion sensitivity should be related to the effects of manufacturing location on ratings of authenticity. Specifically, if the essence of the brand is transmitted through a contagion-like process, people who are more sensitive to the concept of contagion should be more likely to believe that the essence has been transferred from the original source of production. Therefore, people who have higher levels of sensitivity to contagion should show a stronger preference for items manufactured in the original factory.

In addition, contagion is usually discussed as a specific subset of magical thinking, which is distinct from (but potentially overlaps with) other forms of magical thinking such as superstitious reasoning (see Nemeroff and Rozin 1994; Rozin, Millman, and Nemeroff 1986; Rozin and Wolf 2008) or the law of similarity (Frazer 1890; Nemeroff and Rozin 1994). In brief, the law of similarity describes the notion that objects that appear similar may produce similar effects and has been used to explain phenomenon such as people’s reluctance to eat chocolate shaped like dog feces (Rozin, Millman, and Nemeroff 1986). For example, in their comparison between the law of contagion and the law of similarity, Rozin and Nemeroff (1990, p. 228) write, “The law of similarity can be glossed as ‘appearance equals reality.’ The law of contagion, in its emphasis on insensible traces of past interactions, emphasizes that appearance does not always represent reality. The latter is clearly the more sophisticated, less sense-based notion.” Therefore, to help identify the specificity of the contagion effect, we also compare the effects of contagion sensitivity with the law of similarity and superstitious beliefs and predict that only contagion sensitivity should be related to preferences for authentic items.

Method

Participants were a new sample of 120 adults ($M_{\text{age}} = 35.4$ years, 69% female) recruited from the same online panel as the previous studies. Each participant evaluated two sets of commercial products, which included two boxes of gourmet chocolates and two identical black leather travel bags.⁶ The two products varied in where they were manufactured (original vs. new factory) but were otherwise identical. The chocolates were modeled after Godiva, which has one factory in Brussels (original factory), and in one in Reading, Pennsylvania (new factory). Similarly, the travel bag was modeled after Louis Vuitton, which has one factory in Paris (original factory), and one in San Dimas, California (new factory). To ensure that participants knew that the retail values of the items were equivalent across the two manufacturing locations, the prices were the same for both items in the pair (\$32 and \$850, respectively). The order in which each pair of products (chocolates or bags) was presented was counterbalanced, as was whether the “original factory” item appeared on the left or right side of the screen.

Participants were asked to report their WTP for each of the products. Participants were also asked to assess the relative authenticity of the products with the following item: “In your opinion, which of these bags (boxes of chocolates) is more authentic?” (1 = “the item on the left,” 5 = “they are the same,” and 9 = “the item on the right”). When the original factory item appeared on the left, the scores were reverse-coded such that values greater than five indicated that the product from the original factory was more authentic.

We also asked participants to indicate the value of the product independent of its potential resale value to others. For example, it may be that people value items from the original factory because they believe that those products will be more valuable to others. Therefore, we also asked participants to respond to the following: “Assuming that the bag is for you (and you will not resell it to someone else), which of these bags is worth more to you?” (1 = “the item on the left,” 5 = “they are the same,” and 9 = “the item on the right”).

At the end of the survey, participants supplied basic demographic information and responded to two items that assessed their sensitivity to the concept of contagion. We adapted these items from the contagion portion of the disgust sensitivity scale (Haidt et al. 1994); they have been shown to predict valuation of celebrity possessions (see Newman, McCauley, and Rozin 2011) and included the following: “Even if I were hungry, I would not drink a bowl of my favorite soup if it had been stirred by a used, but thoroughly washed flyswatter,” and “It would bother me to sleep in a nice hotel room if I knew that a man had died of a heart attack in that room the night before.” These items were significantly correlated ($p < .001$) and averaged to produce a single measure of contagion sensitivity. A third item measured belief in the law of similarity: “If a friend offered me a piece of novelty chocolate shaped like dog-doo, I would not eat a bite.”

In addition, participants completed three items that measured belief in superstition, taken from the Paranormal Belief Scale (Tobayck 1988): “I believe that some objects such as Black cats, or numbers (like ‘13’) can bring bad luck”; “Some people have an unexplained ability to predict the future”; and “In some circumstances, a person’s thoughts can cause an object to move or influence the outcome of an event just by thinking about it.” These items formed a reliable scale, so we averaged them to produce a single measure of superstitious belief ($\alpha = .72$).

Results

In general, we observed that participants rated the chocolates and bag from the original factory as more authentic than the identical products from a new factory location ($M = 6.21$ and $M = 6.04$, respectively; both $ps < .001$ through a one-sample comparison with 5). Similarly, participants were willing to pay more for the chocolates ($M_{\text{diff_WTP}} = \$3.12$) and bag ($M_{\text{diff_WTP}} = \54.17) from the original factory (both $ps < .001$ through a paired-sample *t*-test). Furthermore, participants reported valuing the chocolates and bag from the original factory (vs. the new factory; $M = 5.84$ and $M = 5.55$, respectively; both $ps < .001$ through a one-sample comparison with 5).

Of greater interest was the extent to which preferences for products from the original source of production are related to beliefs in contagion. Therefore, we performed a regression analysis with contagion sensitivity, law of similarity, superstitious belief, item order, and gender as independent predictors of authenticity ratings. This analysis indicated that participants who were more sensitive to contagion rated the item from the original factory as more authentic ($\beta = .22, p = .033$). In contrast, there was no effect of belief in the law of similarity ($\beta = .004, p = .97$) or superstitious belief ($\beta = .01, p = .32$). We also observed a main effect of gender, whereby men rated the original factory item as more authentic than did women ($\beta = .21, p = .029$). However, there was no interaction between gender and contagion sensitivity. We observed no other main effects or interactions.

We conducted a similar regression analysis predicting differences in valuation. To create a single measure of valuation, we first converted the differences in WTP (original factory – new factory) and ratings of valuation into *z*-scores and averaged them across the two products. This analysis also indicated effects of contagion sensitivity ($\beta = .22, p = .03$) and gender ($\beta = .24, p = .01$) but no effect of the law of similarity ($\beta = .03, p = .80$) or superstitious belief ($\beta = .13, p = .17$).

Discussion

The results from Experiment 3 are consistent with the hypothesized contagion explanation. When comparing the original versus new manufacturing location items, people with higher contagion sensitivity reported a larger difference in perceptions of authenticity and WTP than did people with low contagion sensitivity. However, preferences for original factory items were unrelated to superstitious reasoning or the law of similarity. The effect of contagion sensitivity in this experiment was striking given that the contagion items were quite different from any measures of authenticity and had little to do with the valuation of con-

⁶These new items were also derived from the pretest, which identified luxury goods, luggage, and chocolates as products for which participants viewed authenticity to be important.

sumer products per se. Finally, we observed an effect of gender, whereby men showed a stronger preference for authentic items than women. Although we did not predict this result, Argo, Dahl, and Morales (2006) report similar findings in which men are more sensitive to the effects of positive contagion than women.

EXPERIMENT 4: ACTIVATING CONTAGION

The results from Experiment 3 indicated that people who are more sensitive to contagion assign higher authenticity and value to the original factory than those who are less sensitive to contagion. However, the findings do not indicate whether beliefs about contagion actually *cause* differences in perceptions of authenticity or value. Therefore, the goal of Experiment 4 is to determine whether experimentally manipulating sensitivity to contagion subsequently leads participants to report that items from the original factory are more authentic.

To manipulate sensitivity to contagion, we exposed participants to either vignettes developed by Mishra (2009) that activated the concept of contagion or a series of control vignettes that did not (see also Newman, Diesendruck, and Bloom 2011). Following these priming manipulations, participants were exposed to the same materials as in Experiment 3. We predict that activating the concept of contagion will lead participants to judge the products from the original factory as more authentic compared with participants for whom the concept of contagion was not activated.

Method

Two hundred adult participants ($M_{\text{age}} = 35.5$ years, 66% female) recruited from the same online panel as the previous experiments were randomly assigned to one of two priming conditions (contagious prime vs. control prime). The prime consisted of a series of four vignettes. Depending on the condition, the vignettes included descriptions of an action either spreading to others (contagious prime) or not spreading and remaining isolated (control). Specifically, participants read about a person laughing and other people in the vicinity also starting to laugh (or not), a person yawning and others also beginning to yawn (or not), the spread (or not) of the smell of a flower, and the spread (or not) of poison ivy among siblings. Therefore, the same action (e.g., laughing, yawning) was considered either contagious or not contagious, depending on whether it spread (see Mishra 2009; Newman, Diesendruck, and Bloom 2011).

Following the priming task, participants completed the same materials as in Experiment 3, in which they evaluated two identical products that were manufactured by the same brand but in different locations. Using the same method as Experiment 3, we then asked participants to indicate which product (product on the left vs. product on right, with side counterbalanced) they perceived to be more authentic and which product was worth more to them (assuming they would not sell it to someone else). Participants also indicated how much they would be willing to pay for each of the products.

Results

We conducted a series of repeated-measures ANOVAs with prime (contagious vs. control), item (chocolate or bag), item order, and gender as factors. These analyses revealed a

significant effect of the priming condition on perceptions of authenticity and value (see Figure 2). Specifically, participants who were exposed to the contagious prime judged the products from the original factory to be more authentic ($M = 6.52$, $SE = .17$) compared with participants who were exposed to the control prime ($M = 5.83$, $SE = .17$; $F(1, 186) = 8.87$, $p = .003$).

Similarly, participants who were exposed to the contagious prime judged the products from the original location to be of greater value to them ($M = 6.13$, $SE = .16$) than did participants who were exposed to the control prime ($M = 5.53$, $SE = .16$; $F(1, 188) = 7.48$, $p = .007$). There was a main effect of order on the measure of value ($F(1, 188) = 4.76$, $p = .03$). However, this effect did not interact with the priming manipulation.

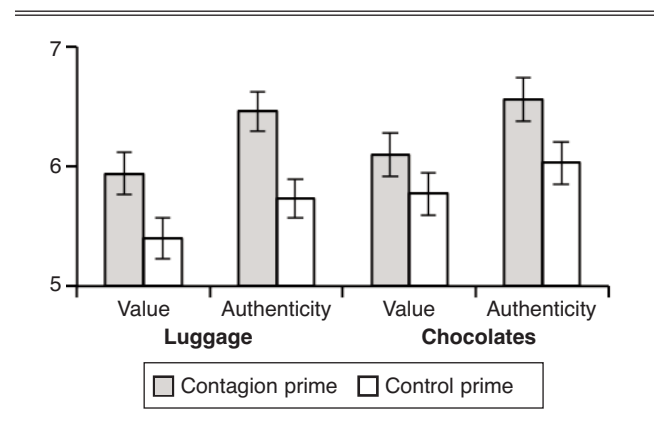
In both the contagious priming and control conditions, participants were willing to pay more for the products from the original factory location versus products from the new factory location (all $ps < .001$, through paired-sample t-test). This difference in WTP did not significantly interact with the priming condition, although it was directionally consistent.

We then used bootstrapping analyses (Preacher and Hayes 2008) to determine whether authenticity ratings can explain the effect of the priming manipulation on increased ratings of value. Specifically, we tested the indirect effects of the priming manipulation on valuation through the mediator of authenticity with gender and item order as covariates. This analysis indicated that there was a significant indirect effect of the priming manipulation on valuation through ratings of authenticity (95% CI = [.06, .36]).

Discussion

In summary, participants who were primed with contagion showed a greater effect of manufacturing location on ratings of authenticity and value compared with participants who were exposed to the control prime. This difference between conditions can only be explained in terms of activating the concept of contagion per se, because there was no other relationship between the contagion primes and the product evaluations. The effects on WTP were somewhat mixed, and the failure to find a significant interaction effect between priming condition and manufacturing location is

Figure 2
AVERAGE RATINGS OF AUTHENTICITY AND VALUE IN
EXPERIMENT 4



likely due to the large main effect of manufacturing location. However, together with the findings of the previous studies, these results provide additional support for the hypothesis that contagion plays an important role in leading consumers to perceive that products from the original factory are more authentic and valuable.

EXPERIMENT 5: CONSUMER INFERENCES

Experiment 5 moves to a more naturalistic paradigm to examine whether consumer valuation is aligned with the default inference that a brand's products are manufactured in the original production facility. To examine this question, we asked participants to consider a series of products made by luxury goods manufacturers (e.g., Hermès, Tiffany's). The products in this experiment were atypical for those brands (e.g., a porcelain coffee mug made by Hermès) but were taken from real-world examples because we wanted to find an obvious case in which any increase in valuation would be associated with the brand rather than inferences about market specialization.

Across conditions, we varied whether the products were manufactured in the original factory or in a different factory location that specialized in the manufacture of that particular type of product (e.g., porcelain home goods). We also included two additional control conditions: one presented the brand information with no mention of the manufacturing location (brand label condition), and the other presented only the product with no mention of the brand or production location (pure control condition). Thus, we were able to compare the specific effect of adding a luxury brand label to a product (pure control vs. brand label) as well as the extent to which consumers assume that branded products are manufactured at the original source of production (brand label vs. original factory).

Method

Participants were 240 adults ($M_{\text{age}} = 36.9$ years, 58% female) recruited from the same online panel as the previous experiments. They were randomly assigned to one of four between-subjects conditions (original factory, specialized factory, brand label, and pure control). In all conditions, participants evaluated four consumer products: a porcelain mug made by Hermès, a sterling silver bottle opener made by Tiffany's, a folding travel scooter made by Chanel, and a set of poker chips made by Cartier. Item order was randomized for each participant. For each product, participants viewed a picture of the product and a brief description (e.g., "A porcelain mug [10 fl. oz.]"). In the pure control condition, this was the only information that participants were given. In the brand label condition, participants read an additional paragraph about the brand, for example, "This mug is manufactured by Hermès. Hermès is a French luxury brand first established in 1837...." In the original factory condition, participants read additional information indicating that the product was made in the original factory (e.g., located in Paris, France). In contrast, participants in the specialized factory condition read that the product was made in a production facility that specialized in the manufacture of that particular kind of product but was located outside the original source of production. For example, for the Hermès porcelain mug, participants in this con-

dition read, "This mug was manufactured in a contracted production facility outside of France that specializes in porcelain home goods." Participants then indicated their WTP for each product and rated the authenticity of each product: "This product is authentic"; "This product is genuine" ($\alpha = .95$).

Results

Given the relative differences in WTP across products (e.g., a mug, a bottle opener), we converted the WTP values into z-scores. We then performed a repeated-measures ANOVA with condition as a between-subjects factor (original factory, specialized factory, brand only, and product only) and product as a within-subject factor (mug, bottle opener, scooter, and poker set). This analysis indicated a significant main effect of condition on WTP ($F(3, 200) = 4.67, p = .004$).

Comparison of the pure control versus brand label conditions indicated that adding the luxury brand label significantly increased participants' WTP for the item ($F(1, 102) = 7.36, p = .008$; see Table 3). Furthermore, as in the previous experiments, participants were willing to pay significantly more for the product when it was manufactured in the original factory compared with the specialized factory location ($F(1, 98) = 5.11, p = .026$).⁷ Thus, consumers were willing to pay a premium for luxury products. However, this WTP seemed to be based on the assumption that the product was made in the original factory location.

Analysis of the authenticity ratings revealed an identical pattern of results. Specifically, a repeated measures ANOVA indicated a significant main effect of condition on ratings of authenticity ($F(3, 236) = 11.69, p < .001$). There was a significant difference between the pure control condition and the brand label condition ($F(1, 118) = 9.07, p = .003$), and participants rated the items from the original manufacturing location as more authentic than items from the specialized manufacturing location ($F(1, 118) = 23.64, p < .001$).

Discussion

Experiment 5 expands on the previous studies by manipulating branding (adding a luxury brand label) alongside differences in manufacturing location. Here, we examine what might be thought of as "far" brand-fit extensions (e.g., Aaker and Keller 1990) because we were interested in cases in which valuation would be associated with the brand rather than inferences about market specialization (however, in future studies it may be worthwhile to examine both near and far extensions). In short, we found that valuation seemed importantly related to the default inference that these luxury extensions were manufactured in the brand's original production facility. Moreover, consumers were willing to pay more for a product from the original factory than for a product made in a different factory that explicitly focused on manufacturing that type of good. This result is notable because it provides at least preliminary evidence that, in some cases, consumers may prefer more authentic products to potentially better-performing ones.

⁷Individual comparisons between conditions for each product replicated these same patterns using both the raw WTP values and log-transformed values (see Table 1).

Table 3
AVERAGE WTP AND AUTHENTICITY RATINGS ACROSS THE EXPERIMENT 5 CONDITIONS

	Pure Control	Brand Label	Original Factory	Specialized Factory
<i>WTP^a</i>				
Mug	\$4.75 (1.29)***	\$11.05 (1.87)	\$12.81 (2.21)	\$9.36 (1.79)
Bottle opener	\$11.48 (1.97)**	\$19.36 (2.43)	\$21.53 (2.63)**	\$12.85 (2.05)
Scooter	\$46.13 (3.45)*	\$64.21 (3.56)	\$100.44 (4.05)*	\$60.66 (3.46)
Poker set	\$31.22 (3.09)***	\$63.03 (3.60)	\$84.84 (3.72)**	\$39.03 (3.31)
<i>Authenticity</i>				
Mug	5.01***	6.71	6.86***	5.32
Bottle opener	6.04**	6.83	7.49***	5.21
Scooter	5.41*	6.25	6.73***	4.57
Poker set	5.71**	6.73	6.97***	4.88

* $p < .10$.

** $p < .05$.

*** $p < .01$.

^aLog-transformed values are in parentheses.

Notes: This table displays the results of individual comparisons between the pure control versus the brand label conditions and the original factory versus the specialized factory conditions. Numbers in boldface indicate that the comparison was statistically significant (at $p < .05$) when performed using log-transformed values.

One result we did not predict was the higher authenticity ratings in the brand label condition versus the pure control condition (in which no brand information was provided). It may be that consumers only expect authenticity when some additional information is provided, such as a brand label or information about the company's origins, which would explain the lower ratings in the pure control condition. This explanation is also consistent with a view that authenticity is often "socially-constructed" to fit the particulars of the situation (e.g., Beverland and Farrelly 2010; Peterson 2005), although further research is needed examine this possibility.

GENERAL DISCUSSION

The primary goal of this article was to experimentally examine the role of contagion in shaping perceptions of authenticity and value based on manufacturing location. Extant research on COO has found that manufacturing location can play an important role in consumer preferences for otherwise identical products but has typically explained this phenomenon in terms of quality inferences or specialization. The current studies, however, take a different approach to understanding this phenomenon by demonstrating that even when brand, retail value, and product appearance are invariant across conditions, differences in manufacturing location lead consumers to assign higher value to products manufactured in the company's original factory.

Importantly, this effect seems to be distinct from inferences about quality stemming from a particular country or potential resale value to others. Instead, we find that the original manufacturing location increases valuation because products manufactured in the original factory are believed to acquire the essence of the brand through the process of contagion, which in turn leads them to be perceived as more authentic. We provide support for this mechanism using specific mediation models (Experiments 1 and 2), individual differences in contagion sensitivity (Experiment 3), and experimental manipulation of contagion (Experiment 4). Experiment 5 extends these findings to demonstrate how the effects of adding a luxury brand label are related to inferences about manufacturing location.

Throughout these studies, we simultaneously address several potential alternative explanations for these effects. Experiment 2 demonstrates that these results do not seem to derive from mere associations between the brand and the country or city, because consumers distinguish the original factory and a newer factory located in the same city as the original. In addition, the present studies go further in describing an underlying contagion process, which explains this difference. In multiple experiments, we hold all information about the products constant and find significant effects of contagion sensitivity (Experiment 3) and activating contagion (Experiment 4). These effects help rule out a solely associative account because all of the stimuli were held constant in our studies and yet we found robust differences in line with the degree to which the contagion concept was activated.

Moreover, these effects do not seem to derive from differences in the perceived value of these items to other people. Put differently, people may want a handbag from Paris (over an identical one from California) because they believe it is more valuable to others or because it makes for a better story. Although these factors may play a role, an account based solely on resale/interest value should not predict any effect of contagion sensitivity (Experiment 3) or activate the concept of contagion (Experiment 4), because all of the product information was invariant across conditions.

Theoretical Implications

This article serves to build a link between three distinct areas of research: COO effects, authenticity, and contagion. With respect to COO effects, the present studies provide evidence for a novel psychological mechanism by demonstrating that perceptions of authenticity seem to be a critical factor in driving consumer preferences based on COO. We further show that this difference in perceived authenticity stems from a belief in contagion—that is, consumers believe that products from the original factory have absorbed the "essence" of the brand, which in turn drives perceptions of authenticity and, thus, value.

These studies also help dissociate the current findings from previous research on authenticity. Previous research

has discussed the role of contagion in the valuations of one-of-a-kind items (Belk 1988; Grayson and Shulman 2000; Newman and Bloom 2012; Newman, Diesendruck, and Bloom, O'Guinn 1991), but it has not specifically tested the relationship between contagion and authenticity for consumer products. Here, we find that manipulations of manufacturing location affect judgments of authenticity and value through perceptions of transferred essence (contagion) but not through measures related to perceived evidence or quality. Indeed, Experiments 1 and 2 empirically distinguished these factors to demonstrate the conditions under which they may be more or less relevant. Moreover, use of the contagion sensitivity scale (Haidt, McCauley, and Rozin 1994) and the contagion priming measures (Mishra 2009; Newman, Diesendruck, and Bloom 2011) is novel to the existing literature on authenticity and provides direct empirical support for the hypothesis that contagion and the belief in transferred essence play important roles in perceptions of authenticity and value for consumer products.

Finally, these results shed light on a novel "brand contagion" effect. The majority of prior research on contagion has either examined contagion effects with respect to positive or negative people (e.g., Argo, Dahl, and Morales 2006, 2008; Grayson and Shulman 2000; Lee et al. 2011; Nemeroff and Rozin 1994; Newman, Diesendruck, and Bloom 2011; Rozin, Millman, and Nemeroff 1986) or disgusting objects (e.g., Morales and Fitzsimons 2007; Rozin, Millman, and Nemeroff 1986). The present studies, however, demonstrate contagion beliefs regarding brands. This is notable because it suggests a far more pervasive and complex psychological phenomenon whereby objects can become "infected" by abstract entities such as brands. Indeed, this is consistent with an increasing body of recent research that has also found contagion effects to be related to abstract concepts such as money (Uhlmann and Zhu 2013), gambling and luck (Mishra 2009; Mishra, Mishra, and Nayakankuppam 2009), and sacred land (Rozin and Wolf 2008).

Practical Implications

These results also have several practical implications. We show that even when two products are made by the same brand, differences in where the items were manufactured can yield large differences in judgments of authenticity and value. Such cases are quite common and are potentially relevant to a great number of industries. This is not to say that consumers will prefer products manufactured from the original manufacturing location in *all* cases. Indeed, if the company has a negative reputation, contact with the original factory may actually be perceived as a bad thing (which may be a worthwhile avenue for further research).

The present studies do, however, demonstrate that when authenticity is a factor, information regarding where a product was manufactured may have an important impact on consumer preferences and may result in a sustainable advantage for brands that maintain a tie to the original production facility. This finding suggests that (1) where applicable, firms may capitalize on messaging that highlights physical connections with the source (as the opening examples in the introduction illustrate); (2) consumer segments that are more sensitive to contagion may be most sensitive

to this type of advertising; and (3) preserving the continuity of intangible "essential" brand factors, such as heritage or pedigree, through physical means (use of the same factory or equipment) may be especially effective. Furthermore, competitors cannot easily imitate these effects if they were to manufacture in the same location because they would lack the same brand-specific connection to that place. For example, holding constant any perceived differences in production quality, the benefits of Levi's manufacturing in San Francisco may far exceed the benefits of other producers lacking "authentic associations" with that particular location.

More generally, firms often face complex decisions regarding a trade-off between brand-centric marketing and efficiency (e.g., does the company move manufacturing overseas or not?). This article provides compelling arguments for why firms may want to pay particular attention to how changes in manufacturing location may affect perceptions of brand authenticity and suggests that in cases in which authenticity is a factor, the effect of manufacturing location on consumer valuation may be substantial.

Conclusions

The present studies serve to connect three distinct literature streams that have converged around an interrelated set of findings. Specifically, prior research on COO has demonstrated that consumers are sensitive to differences in manufacturing location; authenticity research has found that consumers may prioritize connections with the source; and contagion research has found that beliefs essence transfer can play an active role in decision-making across several domains. However, to date, these issues have been studied largely in isolation. Thus, the present studies build a novel and important link between these distinct literature streams by empirically demonstrating how beliefs in contagion can play a critical role in linking information about product origin to consumer perceptions of authenticity and value.

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