

The Handmade Effect: What's Love Got to Do with It?

Despite the popularity and high quality of machine-made products, handmade products have not disappeared, even in product categories in which machinal production is common. The authors present the first systematic set of studies exploring whether and how stated production mode (handmade vs. machine-made) affects product attractiveness. Four studies provide evidence for the existence of a positive handmade effect on product attractiveness. This effect is, to an important extent, driven by perceptions that handmade products symbolically “contain love.” The authors validate this love account by controlling for alternative value drivers of handmade production (effort, product quality, uniqueness, authenticity, and pride). The handmade effect is moderated by two factors that affect the value of love. Specifically, consumers indicate stronger purchase intentions for handmade than machine-made products when buying gifts for their loved ones but not for more distant gift recipients, and they pay more for handmade gifts when purchased to convey love than simply to acquire the best-performing product.

Keywords: handmade, machine-made, production mode, product attractiveness, love, contagion

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The hand follows the heart. Only the hand can make what goes back through the hand to the heart.

—The philosophy of Käthe Kruse, an international producer of handmade toys and dolls¹

In an era of technological advancement and widespread robotization, in which machines produce high-quality products to exacting specifications, it seems ironic that products are increasingly being promoted as “handmade.” Indeed, there are products explicitly advertised as handmade in many categories, such as sandwiches and bread (Pret A Manger, Udi’s), soaps and cosmetics (Lush), guitars (Candelas), sneakers (Vans), eyewear (Armani), knives (Cut Brooklyn), furniture and household products (Etsy), wine (Columbia Crest), and tableware (Gmundner). Some even speak of a “handmade revolution” (see, e.g., the BBC tele-

vision series titled *Paul Martin’s Handmade Revolution*). Considering the high quality of machinal production (Liebl and Roy 2003; Markoff 2012), it is not clear a priori if and why product attractiveness is increased by marketing a product as handmade (vs. machine-made or not mentioning the production mode). Of course, one might argue that a positive handmade effect must exist, given that marketers frequently choose to present their products as handmade. However, in our marketplace observations, whether a product is advertised as handmade tends not to be manipulated and therefore might be confounded with many other factors such as price points, materials used, or design elements. Thus, we believe that there is a need for a controlled empirical test of the existence of an effect of presenting a product as handmade on that product’s attractiveness. To our surprise, we found no such test in the literature.

In the current study, we therefore aim to assess the effect of stated production mode on product attractiveness by manipulating whether the same product is presented to consumers as handmade (vs. machine-made). Conditional on the existence of a handmade effect, our second main objective is to explore one of the processes that might underlie the effect as well as its boundary conditions and moderators. We limit our analysis to Western consumers (by drawing on diverse European and North American consumer samples) and discuss the generalizability of our theory to non-Western societies in our “General Discussion” section. It is also important to note that we focus on the way companies communicate the production mode (i.e., as handmade vs. machine-made) rather than the actual, physical production mode. As has been the case since the times of the ancient Assyrian loom (Barber 2013), and probably even before that, purely handmade production is

¹<http://kaethekruse.de/en/77/3cf9b8a5de66f1ddd9a2eb3ecb02014e/unternehmensphilosophie.html>, (accessed January 20, 2015).

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rare. Almost no production process currently involves no machines (e.g., a maker of handmade knives uses a machine to sharpen the knives). However, many machinal production processes involve some form of human contact. Thus, it is often difficult to objectively categorize a product as completely handmade or completely machine-made (Barber 2013), which provides marketing managers with considerable freedom regarding whether to present their products as handmade (vs. machine-made or to not mention the product's production mode). Thus, rather than the precise role of machines versus hands in the actual production process, we are interested in consumers' perceptions of products that are *marketed* as being handmade. For our research purpose, we thus define a handmade versus machine-made product as one that is presented (e.g., by the producing company) to consumers as being made by hand or a hand process and not by a machine or a machinal process.

This article makes the following contributions. First, and across a variety of product domains and samples from three Western societies, we find that consumers perceive handmade products to be more attractive. We define our focal dependent variable, product attractiveness, as consumers' attitudinal and behavioral predisposition toward the underlying product using both items assessing attitude toward the product and items probing the attractiveness of the product for purchase (Sweldens, Van Osselaer, and Janiszewski 2010). Notably, we find that the handmade effect materializes against both a control group in which the products are portrayed as machine-made and one in which no information regarding the production mode is provided (Study 1).

Theoretically, one of several ways this newly identified handmade effect can be understood is in light of positive contagion and consumer labor theory (Argo, Dahl, and Morales 2008; Newman, Diesendruck, and Bloom 2011; Norton, Mochon, and Ariely 2012; Rozin and Nemeroff 2002). Specifically, this line of research, in addition to informal observations of handmade products' marketing materials, consumers' online comments (e.g., consumer blogs), and interviews with handmade producers, led us to suspect that *love* may be an important driver of the handmade effect. Products labeled as handmade might be perceived to contain (and perhaps even transmit) the artisan's "essence" in the form of his or her love for a product and production process in a way that machine-made products cannot (see, e.g., the video series "Made by Hand" at bureauofcommongoods.com). Of course, love is a sentiment that cannot be located in a product in a real, physical sense, so it should be assumed that consumers' perception of a product "containing love" is of a symbolic, figurative, "as-if" nature. In this context, "perceived love," the term we use throughout the article, thus refers to a consumer's perception of an artisan's emotion of strong attraction and passionate attachment to the product and its production process (see also Carroll and Ahuvia 2006), which becomes symbolically embedded in the product.

Our initial suspicion that love might play a role in the handmade effect was further corroborated by an exploratory pilot study. In this open association pilot study, we asked

114 participants to write down their thoughts and feelings about handmade products. Love, either in the form of the love a handmade producer puts into the production process or in the form of love imbued in the product, emerged as a frequent and robust theme (e.g., "Handmade products are ... built with care and love" [#101], "I like it [handmade product] and especially the fact that it is handmade. It is made with love" [#53], "There is something else in that product.... It is love" [#25]). Thus, preliminary results suggest that perceptions of love would indeed be worth examining more deeply as a potential driver of a handmade effect on product attractiveness.

As with virtually every empirical phenomenon of substantial practical importance, the handmade effect is unlikely to be exclusively driven by a "one and only" process. It is important to identify potential co-determinants so we can control for them in an attempt to isolate the role of love as one significant driver of the potential handmade effect. Thus, we also used the open association pilot to find other factors that might co-determine a handmade effect on product attractiveness. We found that some respondents perceived handmade products to require more time to produce, which might increase perceived quality, and this increased perceived quality, in turn, might yield greater attractiveness. Thus, handmade production might increase attractiveness through the effort heuristic (Kruger et al. 2004). Some respondents also associated handmade products with expensiveness and quality. Finally, some respondents suggested that handmade products were more attractive due to their uniqueness. Thus, the pilot study indicated the need to test mediation of the handmade effect by perceptions of love while controlling for perceived effort, quality, expensiveness, and uniqueness.

In the remainder of this article, we provide a more extensive discussion of the theoretical background, followed by four empirical studies. In Study 1, we demonstrate the existence of the basic handmade effect, showing increased product attractiveness for products presented as handmade over the same products presented as machine-made or presented without mentioning production mode. In Study 2, we find that love perceptions mediate the handmade effect while controlling for the alternative processes identified in the open association pilot. Study 2 further contributes by exploring the handmade effect and the role of perceived love as one of its drivers through moderation. We find that the handmade effect is stronger for a gift intended for a recipient who is emotionally closer rather than more distant. This is because the love perceived to be in the handmade product increases the attractiveness of a gift product more when the recipient is closer to the gift giver. In Study 3, we again moderate the link from perceived love to product attractiveness by showing that the handmade effect is stronger when consumers' gift giving is motivated by a desire to convey love rather than to give the best-performing product. Thus, this study provides support for the idea that handmade products perceived to be imbued with love are valued because they can convey love to the consumer receiving the product. Finally, Study 4 demonstrates the handmade effect through an incentive-compatible experi-

ment and shows mediation by love while controlling for several alternative processes graciously suggested to us by three anonymous reviewers (pride, happiness, contentment, and authenticity). We close with a general discussion that focuses on the managerial and theoretical implications of the studies, limitations, and directions for further research. In summary, these four studies show (1) the existence of a handmade effect, (2) that the effect is driven to a significant extent by perceptions of artisanal love, and (3) boundary conditions of the handmade effect.

Theoretical Background

Machine-Made Versus Handmade

Since the industrial revolution, products have increasingly been produced by machines, with human activity often limited to repetitive actions in which each person is involved in only one or a few steps in the production process (Smith [1776] 2003; Toffler 1980). Recently, widespread robotization has reduced the human role in the production process even further (Brynjolfsson and McAfee 2011), to such an extent, in some cases, that people do not touch the product at all during its production (Markoff 2012). Machinal production has many advantages. Machines tend to be consistent and can be highly precise, often yielding consistently high-quality products (Liebl and Roy 2003; Markoff 2012). Nevertheless, there are still many products that are sold as being handmade even in categories such as soap and ceramic tableware, in which high-quality machinal production is omnipresent. This article investigates if, when, and why products marketed as handmade are perceived to be more attractive than products marketed as being machine-made. To do so, we must begin by discussing a factor that we hypothesize to be a core driver of a possible handmade effect—love.

Love

Our main hypothesis is that handmade products may often be more attractive, at least in part, because they are perceived as being made with artisanal love and even as symbolically containing love. Love is broadly defined as a “passionate affection for another person” and “a feeling of warm personal attachment” (dictionary.com). In our context, we refer to love in a more specific way: in terms of the love that originates with a producer and whose object is the product and its production process rather than another person. The producer’s love for his or her work has been recognized as a main motivational source in the psychology literature (Baum and Locke 2004; Locke 2000). We retain the core elements of love and passion from this literature and define love as the producer’s warmhearted passion for a product or its production process that, as a result, can be perceived as symbolically embedded in the product. This conceptualization consists of the love in the production process (the product is perceived to be made with love) and the love that is imbued in the product (the product is perceived to contain love in a symbolic sense). We hypothesize that love is a core mediator of a possible handmade effect. Specifically,

we reason that consumers perceive handmade products to be made with love and that this perception makes consumers view the product as symbolically imbued with love. To explain our reasoning behind this hypothesis, we go back to Karl Marx and the time of the Industrial Revolution.

Alienated versus artisanal. Since the mechanization of production during the Industrial Revolution, several authors have described the disadvantages of the shift away from handmade, artisanal production. For example, Karl Marx ([1844] 2007) deplored the alienation inherent in the mode of production in which human producers and machines engage in an endless repetition of the same actions that constitute only a single step in a multistep production process and that provide little intrinsic satisfaction. This mode of production stands in stark contrast to a process in which (1) one artisan controls and executes the entire production of a product, (2) artisans often devote years to master their craft, and (3) artisans invest some of their selves in their craft and their products, deriving intrinsic satisfaction from the production process and from the product of their labor.

Artisanal love. In our informal review of information about handmade producers and their products as well as in the free association pilot study, we found frequent references to this emotional investment handmade producers put into their production process and their product. Although not to the exclusion of several other terms, emotional investment is frequently referred to as “love” (Boatwright and Cagan 2010; Csikszentmihalyi and Rochberg-Halton 1981; Locke 2000; Norton, Mochon, and Ariely 2012), both in terms of love for the production process (the craft) and love for the product itself (Csikszentmihalyi and Rochberg-Halton 1981). Indeed, passion or love for one’s work has been identified as an important phenomenon in the organizational behavior literature. For example, passion or love for one’s work is a main motivation for people to engage in the creation of new enterprises (Baum and Locke 2004; Locke 2000). Thus, love for the production process and/or product might be particularly strong in the context of handmade production. This notion seems broadly consistent with recent findings in the consumer realm showing that when consumers make something themselves, by hand, they become emotionally attached to the fruit of their labor; that is, handmade “labor leads to love” (Norton, Mochon, and Ariely 2012). Although professional handmade production may be quite different from consumers’ occasional assembly of IKEA furniture, it seems possible that professional handmade production also begets “love” by the producer. In addition, it seems possible that consumers, who themselves have often created things with their hands and presumably have experienced artisanal love themselves (e.g., through the IKEA effect or such activities as cooking or making Christmas ornaments), infer artisanal love by the producer when they perceive the product to be handmade. In summary, we expect that promoting products as handmade leads consumers to infer that the products were “made with love.”

Imbued love and product attractiveness. Our next assumption is that consumers’ inference that handmade

products are made with love will also symbolically imbue the product itself with love. That is, being made with love will make the product “contain love” in a symbolic, as-if sense. This is a nonobvious step in our argumentation, but it does not appear out of thin air. Our idea that an inferred emotion (i.e., love) of the producer would transfer to the produced object seems broadly consistent with Csikszentmihalyi and Rochberg-Halton’s (1981) speculation. These authors argue that through the manual production of objects, the psychic energy of the creator might be perceived to become part of the emerging object. Part of the “essence” of the handmade producer (the love for the product and/or the production process) may become associated with the product, and thus, the product might be perceived to be imbued with love.

We further expect that being perceived as imbued with love can influence the attractiveness of a product. Through basic processes such as evaluative conditioning (Sweldens, Van Osselaer, and Janiszewski 2010) in which the concept of love is paired with positive experiences and feelings throughout a consumer’s life, products imbued with love should be evaluated more positively. In addition, we expect that a product that is associated with both a gift giver and imbued love should be particularly attractive as a way to convey love.

This “love story” might seem a bit far-fetched, even irrational, but the idea that a product’s attractiveness can be influenced through physical contact by a person other than the consumer is well supported by psychological research on contagion. For example, Argo, Dahl, and Morales (2006) show that a T-shirt’s attractiveness is reduced when it was tried on by an unspecified other consumer. In subsequent research, Argo, Dahl, and Morales (2008) also show positive contagion (i.e., increased attractiveness) when the other consumer that tried on the T-shirt was a specific, physically attractive person. Similar effects occur for friends and well-known celebrities such as President Barack Obama or the singer Madonna (Newman, Diesendruck, and Bloom 2011; Rozin, Millman, and Nemeroff 1996). In addition, Newman and Bloom (2012) find that laypeople’s estimate of the dollar value of an art piece, particularly if created by a well-known artist, is positively influenced by the amount of direct physical contact of the creator with the object during its production process. In short, these authors believe that a “person’s immaterial qualities or ‘essence’ can be transferred to an object through physical contact” (Newman, Diesendruck, and Bloom 2011, p. 216).

Thus, it seems possible that handmade (vs. machine-made) production mode affects product attractiveness through psychological, symbolic contagion. Although the literature does not clearly indicate the direction of such a contagion effect—an unspecified handmade producer may yield negative contagion, much like an unspecified consumer trying on a T-shirt (Argo, Dahl, and Morales 2006)—it seems possible that unspecified handmade producers have a positive contagion effect on the attractiveness of the fruits of their labor. In summary, we predict that even if the underlying producer is anonymous and not known to the consumer (as is often the case with products promoted as

handmade), consumers may infer that the handmade producer makes items with love and may believe that the producer’s love for the production process and/or the product symbolically imbues the emerging object with love. If handmade products are indeed endowed with such love, they should become more attractive for consumers because they take on a special status, both for themselves and as gifts to loved ones. Formally, we hypothesize the following:

- H₁: Presenting a product as handmade (vs. machine-made) can increase its attractiveness to consumers.
- H₂: This handmade effect is driven, at least in part, by consumer perceptions of love being symbolically imbued in the product.

Before we proceed to testing the love explanation for a potential handmade effect, it is necessary to assess whether the handmade effect exists in the first place. We do so in Study 1.

Study 1

In Study 1, we test for the existence of the proposed handmade effect—that is, whether presenting a product as handmade makes that product more attractive to consumers. To perform this test, we employed two control conditions: one in which the same product is presented as machine-made and one in which no production mode is mentioned. The experiment is a 3 (production mode: handmade vs. machine-made vs. no production cue) × 4 (product replicates: greeting cards, jewelry, scarf, knives) mixed-model design in which the first factor is manipulated between participants and the second is manipulated within each participant.

Method

One hundred forty-seven students ($M_{\text{age}} = 19$ years, 49% female) based in the Netherlands volunteered to participate in a product-concept study in exchange for course credit. Participants were randomly assigned to one of the three experimental conditions. In all three conditions, participants were exposed to a color picture of a product along with a label of the product (e.g., scarf), its price (e.g., 70 euros), and at least two attributes further describing the product (e.g., 100% wool, unisex; for more detailed descriptions of the methodology for all four studies, see the Web Appendix). After seeing the product, participants assessed the product’s attractiveness on six items using a seven-point scale that followed the preamble “How do you evaluate this product?” (“dislike/like,” “bad/good,” “not appealing/appealing,” “unlikely to buy/likely to buy,” “I would not/I would be happy to receive [product] as a gift,” “I would not take/I would take more care of this [product] than of other [products]”; $\alpha = .89$). We used the same procedure for the other three products. The only difference between conditions was the provision of the information about how the focal products were made; they were described as being “handmade” or “machine-made,” or no production cue was provided. After evaluating all four products, we asked participants to complete the Perceived Awareness of the Research Hypothesis (PARH) scale (Rubin, Paolini, and

Crisp 2010). Finally, respondents completed an open-ended suspicion probe in which they were asked what they thought the study was about.

Results and Discussion

Preliminary analyses. Because the product attractiveness scales contained a variety of diverse attitudinal and behavioral intention items, we first ran a confirmatory factor analysis (CFA) to assess the psychometric properties of the scale. Importantly, we find that all indicator loadings are positive and highly significant ($ps < .001$); moreover, the model's fit indices (comparative fit index = .96, normed fit index = .94, standardized root mean square residual = .05) and the average variance extracted (AVE = .65) are adequate. These results support the psychometric quality and the uni-dimensional operationalization of the product attractiveness scale. Second, we tested whether a potential handmade effect depended on the product replicate factor. We conducted a repeated-measures analysis of variance (ANOVA) with production mode as the between-participants factor and product replicate as the within-participant factor. Inspection of the corresponding two-way interaction reveals a nonsignificant effect ($F < 1$; for details, see the Web Appendix). This finding indicates that attitudes across product replicates did not significantly differ as a function of our manipulation. We therefore aggregated the data across products and formed an overall product attractiveness index, which served as our dependent variable.

Main analyses and hypothesis test. We first tested whether product attractiveness ratings differed between the two control conditions (machine-made vs. no cue). This test yielded a nonsignificant effect; product attractiveness scores were almost identical ($M_{\text{machine}} = 3.39$, $M_{\text{no cue}} = 3.38$; $t < 1$). This finding is important because it indicates that the machine-made cue, as one might argue, did not produce a negative effect compared with the baseline condition (no production cue provided). For our formal hypothesis test, we therefore collapsed the data across the two control conditions. In support of H_1 , we find that respondents report significantly higher product attractiveness scores in the handmade versus the control conditions ($M_{\text{hand}} = 3.65$, $M_{\text{control}} = 3.38$; $t_{(145)} = 2.41$, $p < .05$). These results provide initial evidence for the existence of the handmade effect, namely, that presenting products as handmade can make those products more attractive to consumers than presenting those same products as machine-made or not mentioning the mode of production at all (note that the handmade effect is also significant if we contrast product attractiveness scores in the handmade vs. the two control conditions separately: handmade vs. machine-made: $t_{(144)} = 1.97$, $p = .05$; handmade vs. no cue: $t_{(144)} = 2.17$, $p < .05$). Finally, our results do not seem to be driven by experimental demand. Controlling for hypothesis awareness (as measured by the PARH scale or by excluding the few participants who guessed the goal of the study) did not change results, and the handmade effect did not interact with either measure of hypothesis awareness.

Discussion. In summary, Study 1 provides evidence for the existence of a handmade (vs. machine-made or no production cue) effect on consumers' perceived product attractiveness (H_1). We also find that results for the condition in which no production cue was present closely tracked results in the machine-made condition. Given that machine-made and no-cue conditions yielded similar evaluations and contrasting handmade with machine-made avoids confounding the specific production mode with mentioning production mode per se, we use machine-made production as our control in subsequent studies.

A potential concern with Study 1 is that generalizability across four replicates might have been boosted artificially by presenting replicates within-participant. That is, evaluations of one product might be used to generate similar responses to the next product, creating unnatural consistency across products within a participant. The pattern of pairwise correlations between replicates within experimental conditions, however, does not support such an explanation: pairwise correlations were low; except for one pair in the no-cue condition ($r = .21$, $p = .04$), none of the pairwise correlations was significant, even at $p < .10$. In addition, different studies in this article use different replicates. Finally, we replicated the handmade effect in single-product studies (that space constraints prevent us from reporting in detail). For example, in a study on tableware that we ran specifically in response to a reviewer's concern about generalizability, consumers perceived the same dinner plates as more attractive if they were described as being hand-painted versus machine-painted ($M_{\text{hand}} = 4.58$, $M_{\text{machine}} = 3.73$; $t_{(144)} = 4.50$, $p < .01$). Furthermore, this study revealed that consumers indicated they would be more likely to buy a hand-painted versus machine-painted plate at a given retail price (\$19) ($M_{\text{hand}} = 2.37$, $M_{\text{machine}} = 1.85$; $t_{(144)} = 2.12$, $p < .05$). In a study involving furniture as a product category, in which we also experimentally varied the time needed to produce a wooden table, consumers perceived the same table as more attractive if it was described as being handmade versus machine-made ($M_{\text{hand}} = 5.17$, $M_{\text{machine}} = 4.68$; ($F_{1, 175} = 9.70$, $p < .01$). Notably, the handmade effect was not affected by the duration of the production process ($F < 1$). In summary, we believe there is strong empirical evidence for the existence of the handmade effect. In the next study, we explore our proposed love account for the handmade effect documented in Study 1.

Study 2

In Study 2, we test our theory that perceptions of love enhance the attractiveness of handmade products. We also examine a potential moderator of the path from perceived love to product attractiveness. Specifically, we argue that products that are perceived to be symbolically imbued with love should be more attractive as gifts in relationships that tend to be characterized by love than in more distant relationships that are usually not characterized by love. Put differently, the perception that handmade products are symbolically imbued with love might make those products more attractive as an effective means of conveying love to a gift

recipient. Conversely, conveying love might seem inappropriate in more distant relationships, which makes the love associated with handmade products an attribute that is less attractive for such gifting situations. Thus, in Study 2, we examine the effect of production mode (handmade vs. machine-made) on the attractiveness of a product as a gift to recipients varying in closeness (e.g., a family member vs. an acquaintance). Our focal love account predicts that the handmade effect is stronger when the giver and recipient have a closer relationship.

Less importantly, we also explored another, more practical issue in Study 2. If part of the handmade effect is due to consumers' perception that the product is made with love, which is perceived to symbolically imbue the product with love, can a marketer take a shortcut to leverage this "love advantage" by directly stating that the product is made with love in a machine-made condition? Or would any such obvious mention be ignored (e.g., because it arouses the consumer's "schemer schema" and/or because consumers would dismiss it as mere puffery or "cheap talk")? Thus, in Study 2, we cross the production mode and recipient factors with (not) directly touting the product as being "made with love." In addition, we use a nonstudent sample and another set of product replicates to add generalizability.

Method

Participants and design. Four hundred eighty-seven members of an Austrian consumer panel were recruited by an international market research agency ($M_{\text{age}} = 38$ years, 54% female) and were randomly assigned to conditions in a 2 (production mode: handmade vs. machine-made) \times 2 (relationship with recipient of a potential gift: close vs. distant) \times 2 (direct love cue: no cue vs. love cue present) \times 4 (product replicates: ceramic mugs, soap, leather goods, stationery) experiment. The first three factors were manipulated between participants and the latter within participant. The Web Appendix provides details of study methodology.

Procedure and stimuli. In the close (distant) relationship condition, respondents were instructed to consider that they were in the market for a gift for someone with whom they have a close (distant) relationship—for example, a relative, a good friend, significant other (a distant acquaintance—for example, a colleague at work).²

Furthermore, participants were informed that the products are either handmade or machine-made. Then, consumers were exposed to the images of the handmade (machine-made) product replicates, one at a time and presented in random order. Participants either saw the plain product pictures (in the no love cue condition) or the product pictures accompanied by direct visual love cues placed next to the product pictures (in the love cue condition; e.g., "made with

love," heart-shaped graphics; stimuli adapted from existing commercial brochures, ads, or brand labels).

Measures. Purchase intention served as our main dependent variable, and we measured it directly after each product replicate exposure with three items following the preamble: "Would you buy a product of this firm as a gift for the intended gift recipient?" ("For this occasion, I would buy this product as a gift," "It is unlikely that I would buy a product of this firm as a gift" [reverse-scored], and "I would feel good about buying a product of this firm as a gift"; 1 = "strongly disagree" to 7 = "strongly agree"; $\alpha = .84$).

After having been exposed to all four firms/products, participants completed items to measure our process and control variables using a holistic judgment of all firms/products combined (all items are measured on seven-point scales; 1 = "strongly disagree" to 7 = "strongly agree," unless otherwise noted). We measured perception of love symbolically embedded in the product ("contains love"), our main mediator variable, with three items: "The products ... can figuratively be described as 'warm' ('warmhearted'), are full of 'love,' are full of 'passion'" ($\alpha = .87$). To provide more nuanced evidence for our conjectured process—that is, to examine whether love in the product ("contains love") is a consequence of the love invested by the handmade producer in the production process ("made with love")—we also measured the latter love component with two items: "I think the products are 'made with love'" and "I think the products are 'made with passion'" ($\alpha = .94$). Importantly, we measured the "made with love" items after the "contains love" items to avoid the threat of self-generated validity (i.e., that answers of the more obvious "made with love" construct "lead" respondents in their answers of the less obvious "contains love" construct). We also measured several other factors potentially underlying the handmade effect, as identified in the free association pilot study (uniqueness, quality, effort, and expensiveness), as well as a manipulation check of the relationship closeness factor (for measures, see the Web Appendix).

Results and Discussion

Preliminary analyses. We first performed a series of CFAs to establish discriminant validity between all pairs of constructs. First, a series of chi-square difference tests demonstrates that two-factor models fit the data significantly better than single-factor models ($ps < .001$). Second, Fornell-Larcker tests reveal that the AVEs exceed the shared variances among all pairs of constructs, which further supports discriminant validity.

Before collapsing data across product replicates, we performed a 2 (production mode) \times 2 (relationship closeness) \times 2 (love cue) \times 4 (product replicate) mixed model ANOVA on purchase intention. We find that none of the relevant effects interact with product replicate (all $Fs < 1$; for details, see the Web Appendix). Thus, we collapsed the data across replicates for further analyses.

Manipulation check. A 2 \times 2 ANOVA of the relationship closeness index produced, as intended, a main effect of the

²Fifty-three participants failed a reading check that directly followed the relationship manipulation in which they were asked for whom the potential gift was intended (0 = a close person, 1 = a distant person) and were thus excluded from further analysis (this criterion was determined before data collection to reduce noise in the data).

relationship factor ($F_{(1, 426)} = 1,915.29, p < .001; M_{\text{close}} = .91, M_{\text{distant}} = -.87$). All other effects proved insignificant ($ps > .22$).

Product attractiveness. A three-way ANOVA on purchase intention produces a significant main effect of the production mode factor ($F_{(1, 426)} = 9.48, p < .01$) such that respondents generally show a significantly stronger intention to buy handmade (vs. machine-made) products as gifts ($M_{\text{hand}} = 4.11, M_{\text{machine}} = 3.81$). Thus, the findings replicate the positive handmade effect observed in Study 1. Consistent with our focal prediction in Study 2, however, this main effect is qualified by a production mode \times gift recipient interaction ($F_{(1, 426)} = 14.54, p < .001$). Contrasting the handmade effect by gift recipient, we observe the positive handmade effect in the gift-giving condition for close others ($M_{\text{hand}} = 4.32, M_{\text{machine}} = 3.61; F_{(1, 426)} = 23.22, p < .001$) but not in the gift-giving condition for distant others ($M_{\text{hand}} = 3.92, M_{\text{machine}} = 3.99; F < 1$; see Figure 1). The remaining main and interaction effects proved insignificant ($F_s < 1$). Of particular interest is the insignificance of effects involving the direct love cue (main effect: $F < 1$, interaction with production mode, $F_{(1, 426)} = 1.02, p = .31$; three-way interaction between production mode, relationship closeness, and the direct love cue, $F < 1$). Thus, in our data, merely telling consumers that a product is made with love is not an effective shortcut for machine-made products. It also does not boost or diminish the attractiveness of handmade products.

Love. A three-way ANOVA on love reveals that respondents perceive handmade products to symbolically contain significantly more love than machine-made products ($M_{\text{hand}} = 4.23, M_{\text{machine}} = 3.14; F_{(1, 426)} = 65.01, p < .001$). We also observe that the presence of the direct love cue slightly boosted consumer perceptions of love associated with the products ($M_{\text{cue}} = 3.85, M_{\text{no cue}} = 3.52; F_{(1, 426)} = 5.79, p < .05$). The other effects, including the three-way interaction, the production mode \times direct love cue interaction, and the production mode \times relationship closeness interaction were not statistically significant (all $ps > .23$). Note that the

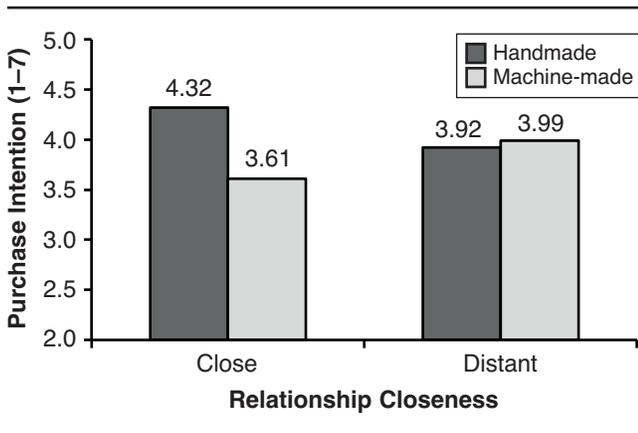
absence of a production mode \times relationship closeness interaction on love is as expected because we hypothesized that relationship closeness would moderate the path from love to product attractiveness, not the path from production mode to love. Handmade production is perceived to symbolically imbue a product with love regardless of the recipient who will later receive the product; however, the love is less valued when the relationship between the giver and the recipient is more distant.

Alternative process variables. Consistent with the insights from the qualitative exploration of the handmade effect, we also find main effects of the production mode on all other process and control variables. Handmade products are generally associated with more uniqueness ($M_{\text{hand}} = 4.63, M_{\text{machine}} = 2.75; F_{(1, 426)} = 140.85, p < .001$) and higher quality ($M_{\text{hand}} = 5.59, M_{\text{machine}} = 4.77; F_{(1, 426)} = 44.87, p < .001$). They are also perceived to be more expensive ($M_{\text{hand}} = 4.80, M_{\text{machine}} = 3.67; F_{(1, 426)} = 77.55, p < .001$) and more effortful to produce ($M_{\text{hand}} = 4.79, M_{\text{machine}} = 3.21; F_{(1, 426)} = 150.59, p < .001$). To account for these variables, we added them as controls in the subsequent mediation analysis (note that multicollinearity was not a concern in this study).

Moderated mediation. We predicted that the handmade effect on the attractiveness of products for gifting occasions would be stronger in the case of a close (vs. distant) gift recipient because the love embodied in handmade products is appreciated more when giving to close than to distant others. That is, we expect a pattern of moderated mediation in which production mode has a main effect on “contains love” and in which “contains love” interacts with gift recipient to affect product attractiveness. As expected, a bootstrapping analysis (Hayes 2013) including uniqueness, quality, expensiveness, and production effort as covariates reveals that the indirect effect of the production mode on purchase intent through “contains love” is significantly stronger (95% confidence interval [$CI_{95\%}$]: $-.54, -.19$) in the close than in the distant gift recipient condition (close: $CI_{95\%}$: $-.66, -.32$; distant: $CI_{95\%}$: $-.27, -.01$). Thus, we find evidence, even when controlling for alternative processes, that the handmade effect is significantly mediated by perceptions of love in the product and that love in the product is significantly more positively related with purchase intention in the close (vs. distant) recipient condition.

Sequential mediation. Because this article’s core contribution, in addition to documenting the handmade effect, is to show that this effect is at least partially due to handmade products becoming imbued with love, we concentrate on showing mediation by “contains love.” However, our theory specifically argues that this perceived love in the product is the result of a handmade producer’s love for the production process. Therefore, we also ran a sequential mediation analysis in the close recipient condition (in which the handmade effect was present, as expected). This analysis showed a significant sequential indirect effect from production mode to “made with love” to “contains love” to purchase intent ($CI_{95\%}$: $-.53, -.18$), which supports the overarching love account underlying the handmade effect.

FIGURE 1
Mean Purchase Intention for Handmade Versus Machine-Made Gifts as a Function of the Relationship to the Gift Recipient (Study 2)



Discussion. The results in Study 2 provide evidence for our theorizing about the role of love underlying the handmade effect. Consumers indeed associate handmade products more strongly with love symbolically imbued in the product. This love, in turn, helps explain why consumers prefer handmade over machine-made products as gifts. Importantly, we were also able to moderate the love–product attractiveness link: specifically, our results show that handmade products’ being symbolically invested with love makes them more attractive as gifts for relationally close (vs. distant) recipients. Anecdotally, this finding seems consistent with our constation that the frequency of Internet searches for handmade products increases strongly around the holidays when consumers presumably search especially for gifts for their loved ones (using Google Trends over the 2004–2011 period).

Study 3

In Study 2, we assumed that handmade products are particularly attractive as gifts to close recipients because gift givers would be more motivated to convey love to close recipients (relative to more distant recipients). Although expressing love is a common motivation for buying gifts for close others (Belk and Coon 1993), we did not assess this motivation directly. Therefore, Study 3 provides further evidence for the proposed love account by manipulating the motivation to convey love directly. In other words, we test whether handmade products become more attractive if the gift-giving goal is to use the product to convey one’s love to the recipient. Such a pattern of results would further validate our love account.

Method

Participants, design, procedure, and stimuli. Four hundred two consumers ($M_{\text{age}} = 31$ years, 38% female) recruited from a U.S. online consumer panel participated in a study on wine glasses; participants were exposed to visual stimuli depicting two wine glasses, one from the Spiegelau brand and one from the Riedel brand. The focal question was which of the two types of wine glasses participants would choose as a gift for one of their close ones (i.e., a close family member). We manipulated which of the two brands of glasses was handmade and which was machine-made. We also manipulated the focal gift-giving goal between participants. Participants were asked which of the two types of glasses they would choose if their goal was to convey their love to the gift recipient versus to give the best possible glasses for drinking wine. This manipulation enables us to test whether handmade products become more attractive if the goal motivating the gift giving is to convey love. Such a finding would provide converging evidence for our focal love account: if conveying love is key, handmade products become more attractive (because they “contain” love). Thus, participants were randomly assigned to conditions in a 2 (production mode: Riedel machine-made, Spiegelau handmade vs. Riedel handmade, Spiegelau machine-made) \times 2 (gift-giving goal: love vs. performance) experiment.

Measures. Preference for a set of six wine glasses of one brand (Spiegelau) or the other (Riedel) served as our

main dependent variable, and we measured it directly after product exposure. We employed three measures, captured on six-point scales: (1) “I would definitely prefer to buy the [production mode] glasses from Spiegelau/Riedel,” (2) “I would choose the glasses from Spiegelau/Riedel,” and (3) “I would purchase the Spiegelau glasses/Riedel glasses” (1 = “Spiegelau,” and 6 = “Riedel”; $\alpha = .99$). After the product preference scales, we captured perceptions of love in the product (i.e., “contains love”) with three items: (1) “The production process imbued the products with a lot of love,” (2) “The products contain love,” and (3) “I think the products are full of love” (1 = “more true for [production mode] Spiegelau glasses,” 6 = “more true for [other production mode] Riedel glasses”; $\alpha = .97$). The Web Appendix provides additional details of study methodology.

Results and Discussion

Preliminary analyses. We performed a series of CFAs to test whether product preference is empirically distinct from love. First, a chi-square difference test demonstrates that a two-factor model is superior to and significantly better than a single-factor model ($p < .001$). Second, a Fornell–Larcker test reveals that the AVE exceeds the shared variance between the two constructs, which supports discriminant validity.

Product attractiveness. A 2 (production mode: Riedel machine-made, Spiegelau handmade vs. Riedel handmade, Spiegelau machine-made) \times 2 (gift-giving goal: love vs. performance) ANOVA on product preference first reveals a main effect of the production mode, which replicates the positive handmade effect documented in the prior studies: when the Riedel glass was portrayed as handmade, respondents demonstrated a significantly stronger preference for the Riedel glass compared with when it was portrayed as being machine-made ($M_{\text{hand}} = 4.85$, $M_{\text{machine}} = 2.20$; $F_{(1, 398)} = 366.62$, $p < .001$). Second, the main effect of the gift-giving goal factor was insignificant ($F < 1$). Third, and in support of our love account, we find a significant interaction ($F_{(1, 398)} = 24.11$, $p < .001$). Although the handmade effect is positive and significant in both scenarios, it is significantly more pronounced in the love (vs. performance) condition—that is, if the goal of giving the wine glasses was to convey love ($M_{\text{hand}} = 5.15$, $M_{\text{machine}} = 2.02$; $F_{(1, 398)} = 257.35$, $p < .001$) versus to give the best possible glasses for drinking wine ($M_{\text{hand}} = 4.53$, $M_{\text{machine}} = 2.38$; $F_{(1, 398)} = 121.51$, $p < .001$).

Love. As we expected, a 2 \times 2 ANOVA on love only reveals a main effect of the production mode factor. Respondents perceive the Riedel glass to contain more love when portrayed as handmade ($M_{\text{hand}} = 4.85$) versus machine-made ($M_{\text{machine}} = 1.98$; $F_{(1, 398)} = 903.29$, $p < .001$; other F s < 1).

Moderated mediation. We specified the same type of moderated mediation model as in Study 2, replacing gift recipient by gift-giving goal. As we expected, we find that the indirect effect (production mode—contains love—preference) is significantly stronger ($CI_{95\%}$: .25, .100) if conveying love as opposed to maximizing performance is the primary gift-giving goal (love: $CI_{95\%}$: -2.97 , -2.14 ; performance: $CI_{95\%}$: -2.33 , -1.48).

Discussion. In Study 3, we replicated the handmade effect in a side-by-side preference setting and provided additional process evidence through moderation and mediation. Specifically, we argue that because handmade products are believed to contain love, they are particularly well suited to convey love. We find support for this argument in that preference for handmade products was stronger when the gift-giving goal was to convey love (vs. giving the best-performing product). Moderated mediation results further corroborated this process account.

Study 4

The studies reported thus far measure the handmade effect using a variety of attitudinal and behavioral intention measures. However, these measures, while informative, did not involve consequential decisions and did not involve a dollar metric. That is, we did not show that participants were actually willing to pay a significantly higher amount of money for handmade versus machine-made products. Therefore, drawing on a sample of U.S. consumers, Study 4 employs an incentive-compatible willingness-to-pay (WTP) measure. In addition, anonymous reviewers graciously suggested additional alternative processes for which we did not control in the prior studies. In particular, one might argue that handmade products are considered more authentic or that handmade production arouses other positive emotions, such as pride, happiness, or contentment. Although we believe that the handmade effect, like virtually any other managerially relevant phenomenon, is probably driven by multiple processes, we argue that perceptions of love symbolically imbued in handmade products can be a significant driver of the handmade effect, even if controlling for these alternative accounts. Therefore, in Study 4, we assess “contains love” as a mediator of the handmade effect while controlling for these other positive emotions.

Method

Participants, design, procedure, and stimuli. Three hundred two consumers ($M_{\text{age}} = 35$ years, 53% female) recruited from a U.S. online consumer panel participated in a study run just before Mother’s Day (May 11 in this case). Participants were informed they could win a bar of Le Sérail brand French milled soap for their mother. Embedded in other product information, we manipulated the production mode (handmade vs. machine-made) between participants. After product exposure, participants completed a short questionnaire containing an incentive-compatible measure of WTP and a set of items capturing love, happiness, pride, contentment, and product authenticity.³

Measures. Willingness to pay for a bar of Le Sérail soap was our main dependent variable; we measured it on a slid-

³We deleted 39 participants from the initial sample because they indicated that their mother was not alive anymore, annulling the incentive compatibility of the task (the opportunity to win a gift for one’s mother is not meaningful for these participants). Thus, the final sample consisted of 263 participants ($M_{\text{age}} = 34$ years, 51% female).

ing scale (US\$0–US\$15) directly after product exposure using a version of the incentive-compatible BDM lottery (Becker, DeGroot, and Marschak 1964), which has been demonstrated to be a reliable and valid elicitation method of consumers’ WTP (Wertenbroch and Skiera 2002) and has been used widely in marketing (e.g., Franke, Schreier, and Kaiser 2010; Fuchs, Prandelli, and Schreier 2010; Mochon, Norton, and Ariely 2012; Norton, Mochon, and Ariely 2012; Nunes and Boatwright 2004). In the traditional BDM lottery, respondents are asked to indicate the maximum price they are willing to pay for a product. Researchers then randomly draw a price from, for example, an urn containing all prices within a realistic range. If the respondent’s stated maximum price is higher than the randomly drawn price, the respondent pays the randomly drawn price and receives the product. If the respondent’s stated maximum price is lower than the randomly drawn price, the respondent does not pay and does not receive the product. This procedure can be formally shown to incentivize the respondent to indicate his or her unbiased, true WTP (Becker, DeGroot, and Marschak 1964; Wertenbroch and Skiera 2002). To reduce cost and allow implementation using an online panel while avoiding payment collection issues, we added another lottery (for a previous example of adding another lottery, see Schreier, Fuchs, and Dahl 2012). Participants were truthfully told that they would enter a lottery for a prize of \$15 and that winners of the \$15 would enter the standard BDM procedure, receiving the \$15 but no product if their stated maximum price was lower than the randomly drawn price and receiving the product plus what was left of the \$15 after paying the randomly drawn price if their stated maximum price was above the randomly drawn price. Nonwinners of the \$15 prize did not receive or pay money and did not receive the product. As Ding (2007) demonstrates, superimposing the additional lottery does not change participants’ incentive to state their true, unbiased WTP.

We measured love with three items (1 = “strongly disagree” to 7 = “strongly agree”): “I think the production process imbued the product with a lot of love,” “The product contains love,” and “I think the product is full of love” ($\alpha = .94$). The Web Appendix provides additional details of study methodology, including measures for the alternative accounts.

Results and Discussion

Preliminary analyses. A series of CFAs first indicated that love is empirically distinct from the rival explanations (chi-square difference tests: $ps < .001$; in addition, the Fornell–Larcker criterion suggested discriminant validity). To avoid multicollinearity among the alternative accounts in the mediation analyses reported subsequently, we used each construct separately to establish the relative power of love in mediating a potential handmade effect on WTP.

WTP. An ANOVA on WTP replicates the handmade effect based on a behavioral, incentive-compatible outcome variable. If the soap was described as handmade, respondents indicate a significantly higher WTP than when it was described as machine-made ($M_{\text{hand}} = \text{US}\6.56 , $M_{\text{machine}} = \text{US}\5.63 ; $F_{(1, 261)} = 4.53$, $p < .05$).

Mediation by love. To again test for love as a mediator, we specified a model with the production mode as the independent variable, love as the mediating variable, and WTP as the dependent variable. We ran four mediation models in which we added happiness, pride, contentment, and authenticity as covariates, one at a time to avoid multicollinearity. In all four models, we find that love is significantly related to WTP, which supports mediation (i.e., none of the confidence intervals contained zero). It is noteworthy that alternative models in which the rival process variables were specified as mediator variables and love as the covariate produced hardly any significant mediation effects. These effects are also consistent when we ran an additional model in which we added a compound index of all alternative process measures ($\alpha = .93$) as a rival mediator. Thus, the findings indicate that love mediates the handmade effect independent of and beyond any effects stemming from more general positive emotions (e.g., happiness, pride, contentment) as well as perceptions of product authenticity.⁴

Discussion. In Study 4, we find that participants in an incentive-compatible experiment are willing to pay more for the same bar of French milled soap when it is promoted as handmade than when it is promoted as machine-made. The effect appears to be substantial: marketing the same soap bar as handmade increases consumers' WTP, on average, by 17%. Importantly, in this study, we also find mediation of the handmade effect by perceived love symbolically imbued in the product ("contains love") when we control for the rival accounts authenticity, pride, happiness, or contentment.

General Discussion

Across four studies, we document the existence of a positive handmade effect on product attractiveness and find that this effect is, to an important extent, explained by love. That is, in Study 1, we find that participants evaluate products marketed as handmade more positively than either products described as machine-made or products that do not mention any mode of production. In Study 2, we moderate the handmade effect by manipulating the relationship between giver and recipient of a potential gift. Specifically, we find that handmade products are no longer more attractive than machine-made products when the products are evaluated as gifts for socially more distant (vs. close) recipients. Products perceived as "containing love" do not convey as much of an advantage for products that are to serve as gifts for distant recipients as for products that are to serve as gifts for close recipients. In Study 3, we tap into the process more directly. We show that when the goal of a gift is to convey love, gift givers show a stronger preference for a handmade (vs. machine-made) product than when the gift giver's goal

is to give the best-performing product. Finally, in Study 4, we provide evidence for the managerial significance of the handmade effect by using an incentive-compatible measure of WTP. We find that participants are willing to pay 17% more for a bar of French soap when the soap is presented as handmade (vs. machine-made).

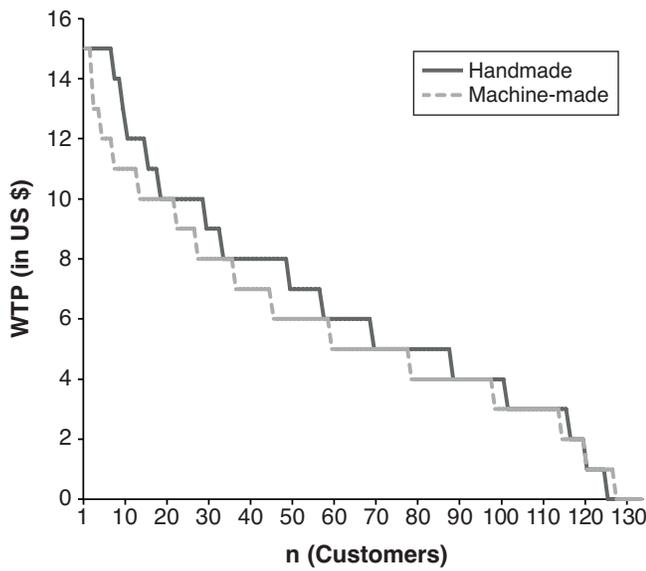
Theoretical and Practical Implications

In addition to demonstrating the existence of a positive handmade effect on product attractiveness (in a way that controls common confounds by experimentally manipulating stated production mode), the present studies uncover the mediating role of perceptions of the love with which handmade products are produced and with which handmade products are perceived to be symbolically imbued. Although our primary goal was to contribute to the understanding of the influence of stated production mode (handmade vs. machine-made) on product attractiveness, our results also speak to the literature on psychological contagion. The studies herein suggest that a specific emotion of the product's creator (love) can symbolically transfer to the product and affect the attractiveness of that product to consumers. Moreover, our findings suggest that positive contagion effects are not only elicited by physical contact with a specific producer (e.g., a well-known celebrity; Newman, Diesendruck, and Bloom 2011) but can also be elicited by physical contact with an unspecific, anonymous producer. This finding is of interest because physical contact by an unspecific other (i.e., another consumer) has previously been shown to produce negative contagion effects (Argo, Dahl, and Morales 2006). Finally, our research contributes by documenting the role of a process variable underlying a positive contagion effect directly, through measurement and mediation, supplementing evidence provided through the more common moderation approach.

In addition to our findings' theoretical significance, they have clear practical implications. Our results suggest that producing a product by hand, or rather marketing it as such, can be an effective way to make a product more attractive to consumers, of course with several caveats about target population and the type of handmade production involved (see the section "Limitations and Further Research"). In this regard, the incentive-compatible Study 4 is particularly informative. We find that in our U.S. sample, consumers were, on average, willing to pay 17% more for a bar of soap that was portrayed as handmade versus machine-made. This is a substantial difference, but a more fine-grained analysis suggests that the handmade effect may be even larger for the segment of customers most likely to be in the market for the focal product. We plotted the downward-sloping demand curves for the handmade and machine-made conditions of Study 4 (see Figure 2) and found that the handmade effect appears to be particularly pronounced at higher rather than lower levels of WTP within their production mode condition (i.e., for respondents who are especially interested in getting the focal product). For example, the handmade effect yields an increase in WTP of 25% when comparing those at the 95th percentile of WTP in the handmade condition with those at the 95th percentile in the machine-

⁴Mediation models: love (mediator) controlled for happiness: $CI_{95\%}$: .008, .40; love controlled for pride: .05, .35; love controlled for contentment: .06, .42; love controlled for authenticity: .07, .35; love controlled for compound index of alternative accounts: .001, .38; alternative mediation models controlled for love: happiness (mediator): -.08, .23, pride: -.07, .19, contentment: -.08, .11, authenticity: .001, .17; compound index: -.46, .28.

FIGURE 2
Consumer Demand (WTP) for a Handmade Versus Machine-Made Bar of Soap (Study 4)



made condition. This pattern is formally confirmed by a series of quantile regressions that compare WTP for participants in the handmade versus machine-made condition at the same percentile of WTP within their condition. For example, while the handmade effect is of medium strength at the 5th percentile ($b_{5\%} = .5, p < .10$) and the median ($b_{50\%} = .5, p < .05$), it is much stronger at the 95th percentile ($b_{95\%} = 1.5, p < .01$). Thus, marketing products as handmade seems particularly relevant for the left-hand side of the demand curve—that is, for consumers who are generally willing to pay higher amounts for the focal product.

In addition to the handmade effect per se, the love process underlying that effect should have direct managerial implications too. Marketing products as handmade appears to be particularly promising when love is a central buying motive—for example, when consumers are searching for gifts (1) for close others to whom (2) they want to convey their love. Thus, marketing products as handmade might be particularly promising during the Christmas season or around Mother’s Day or Valentine’s Day, for example. Reminding potential customers that handmade products might be the right way to convey their feelings to their loved ones is a promising communication strategy toward that end.

Marketers might also stress the love in the handmade production process in their advertising by, for example, providing vivid pictures and rich descriptions of the production process. The Austrian ceramic tableware brand Gmundner, for example, presents detailed information about its products’ production process, including pictures of the artisans producing the tableware with joy, passion, and love (e.g., “Apart from artistic talent, this profession requires ... a lot of love and care. One can sense this in the end product”). The results in Study 2, however, suggest that highlighting the love in handmade production should be done subtly so that it does not activate the consumer’s schemer schema. In

Study 2, we find that direct statements and love cues did not have a noticeable effect. The findings also indicate that marketers of machine-made products cannot take a simple shortcut to love by merely saying their products are “made with love” (Study 2).

Limitations and Further Research

Because this research is, to the best of our knowledge, the first series of experiments on the handmade effect, we view our work as merely a first step toward understanding the impact of marketing a product as handmade. Some caveats apply, and many questions remain for further research. First, most of our studies involved comparing handmade products with products explicitly presented as machine-made. At first sight, one might argue that this comparison reduces the external validity of our results because more companies present their products without mentioning production mode than as machine-made. We chose to contrast the handmade with the machine-made production mode in most of the studies to safeguard internal validity. This is because contrasting the handmade production mode with not mentioning the production mode confounds the specific mode of production (i.e., by hand or by machine) with the salience of production process per se. In addition, we included a no-cue control condition in the first experiment (Study 1). We found that machine-made results were similar to the no-cue condition, possibly because, as the open association pilot study suggests, consumers naturally contrast handmade production with machine-made production. For all these reasons, we chose to use machine-made as our control condition and omit the no-cue control in the process-oriented studies that followed. Finally, it is noteworthy that marketing products as machine-made is not without precedent. For example, in the 1980s, Italian carmaker Fiat touted its Fully Integrated Robotized Engine (FIRE). More recently, the upscale wine glass manufacturer Riedel has actively promoted some of its wine glasses as handmade but touts other wine glasses to be fully “machine-blown.” Similarly, the cigar manufacturer Mom’s prominently sells its cigars as “machine-made.”⁵

Second, as with most phenomena of practical importance, the handmade effect is almost certain to be driven by multiple processes. That is, several processes contribute to the effect. For example, in Study 4, we find significant mediation of the handmade effect by authenticity (in addition to the much stronger mediation by love). Our experiments were designed to isolate the love driver from many, in our view more obvious, potential drivers such as uniqueness or quality. We chose to focus on imbued love for our initial empirical exploration of the handmade effect because the love contagion process is less straightforward and intuitive than some of the other potential mediators. In addition, we believe that the love process is likely to be more specific to handmade production, as many machine-made products are also authentic and machines can increasingly turn out

⁵As one reviewer speculated, the handmade effect might even reverse in developing countries (i.e., machine-made might be viewed as a positive attribute).

high-quality products or can even be programmed to customize products to the extent of being unique (e.g., using 3-D printing). That is, perceptions of handmade products being made with love may prove more stable over time (and across situations) than perceptions of handmade products being unique or of higher quality. In summary, our goal in this initial research was to test for the existence of a positive handmade effect and to explore the role of love imbued in the product as one of the drivers of the effect. We focused on perceptions of symbolically imbued love but fully recognize that the handmade effect is driven by multiple processes.

Third, alternative explanations might exist for specific results in this article. For example, as one reviewer indicated, it could be argued that the results in Study 2 are due to handmade products being more difficult to find and therefore suggest greater effort on the part of the gift giver (instead of the producer), which might be particularly valuable when giving to a close (vs. distant) recipient. It is unclear, however, how this alternative explanation accounts for the mediated moderation results. In addition, we would expect that effort on the part of a gift giver would always be a good thing, thereby yielding a (potentially smaller, but substantial) positive handmade effect in the distant-recipient condition, which we do not find. Nevertheless, we recommend this and other potential alternative explanations for inclusion in further research.

Fourth, documenting the existence of the handmade effect does not imply that we believe the effect is universal. We find a positive handmade effect with three distinct samples of consumers in three countries (Austria, the Netherlands, and the United States), but our results in Study 2 show that the handmade effect is not omnipresent. We find no significant handmade effect when products are bought for an emotionally more distant gift recipient. The results in Studies 2 and 3 show that the handmade effect can be moderated by factors that reduce the value of conveying love (i.e., by factors that affect the link between love and product attractiveness, by changing gift recipient in Study 2, and by changing the gift-giving goal in Study 3).

The handmade effect should also be moderated by factors that reduce the extent to which handmade production is perceived to imbue the product with love (i.e., by factors that affect the link between the handmade production mode and love). Whereas for our Western samples, the handmade label may be a cue to love by default, additional information may change this inference. For example, consumers in developing economies or poorer customers in Western societies may not associate handmade products with love at all (and may instead associate manual production with alienation, oppression, hardship, and low quality). We expect the handmade effect to be stronger for well-to-do, Subaru-driving, organic-granola-eating academics in scenic college towns than for hardscrabble day laborers in the developing world. Even for well-to-do Western consumers, we expect that different countries of origin may entail different inferences about love. Handmade shoes from low-wage, emerging economies with little regard for the well-being of manual laborers should be less likely to engender perceptions of love than handmade shoes from Saskatchewan,

Sweden, or Spain; indeed, interviews we conducted with managers of apparel stores resonate well with this conjecture. Thus, we believe that handmade production in some situations may do more to remind consumers of the alienating work processes all too familiar from stories about the industrial revolution or from news items about sweatshops from Bangladesh to Manhattan than to conjure up images of artisanal love. Consistent with this reasoning, a further study (not reported here due to space constraints) involving the manufacturing of Spanish guitars shows that the handmade effect is contingent on the perceived working motivation of handmade producers (intrinsic vs. extrinsic motivation); specifically, we found no significant handmade advantage (vs. a condition in which we provided no production cue) when handmade producers were primarily motivated by economic incentives. However, we did find a strong handmade effect when handmade producers were primarily motivated by intrinsic motives (e.g., when artisans were portrayed as enjoying building guitars).

Accordingly, it is likely that the handmade effect may be attenuated in contexts in which handmade production is industrialized and takes on a mass-production format; mass production may sever the perceptions that artisans are intrinsically motivated to craft the product and, consequently, that handmade products are made with love. Similarly, we believe that the strength of the handmade effect depends on the specific meanings consumers assign to certain product categories. It is possible that the perceptual value of handmade products due to our proposed love account may be reduced in the case of purely utilitarian products. This is because love may not play a role for products that are purely utilitarian, such as do-it-yourself tools or office equipment. However, it is not unlikely that do-it-yourself enthusiasts assign symbolic meaning to these arguably utilitarian products. In this case, we would expect handmade production to lead to a perceptual advantage through symbolically imbued love.

Moreover, the handmade effect should be moderated by factors that affect the attractiveness of handmade products through mediators other than imbued love. For example, handmade production by large corporations may not only reduce perceptions of love but also lack the perceived authenticity and trustworthiness common to smaller producers and their products.

Finally, participants in our experiments were not exposed and introduced to the specific people that handcrafted the products; it seems plausible that familiarizing consumers with the producer might further strengthen the handmade effect. Thus, if consumers are made familiar with the artisan—for example, through an advertisement displaying the artisan (at work, as done, for example, by the fashion brand Vans)—they might be able to better envision the love put into the product, which in turn might increase perceived product attractiveness.

Conclusion

In light of rapid technological advancements in information technology and manufacturing, which are increasing the prevalence of a fully machine-made production mode at an

unprecedented pace (Brynjolfsson and McAfee 2011), this research suggests that human, hand-based labor will not disappear (and will continue to play an important role in the labor market). Our results show that consumers have a special appreciation for the human factor in production; hand-made products are perceived to be made with love by the craftsman and even to contain love, and this perception is a significant contributor to the positive handmade effect on product attractiveness. Put differently, efficiency and cost

gains proposed by classical economists dating back to Adam Smith and industrialists such as Henry Ford do not necessarily outweigh the value of the human factor in production; in contrast to humans, machines just do not produce love, or as reflected by the slogan of the Italian car manufacturer Alfa Romeo, “*senza cuore saremmo solo macchine*.”⁶

⁶“Without heart we’re nothing but machines.”

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