

**Are you up for fair-trade products?**  
**Vertical dimension as a metaphorical representation of virtuous consumption**  
**(accepted for publication at *Journal of Business Research*)**

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**Financial disclosure**

The authors declare that no competing interests exist.

**Funding**

This work was supported by Rennes 2 University (France) and the London School of Economics and Political Science (UK).

**Acknowledgements**

The authors thank Gemma Gordon and Feiyang Wang for their helpful comments.

**CRedit author statement**

**Frédéric Basso:** Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Writing - Original Draft preparation, Writing - Review & Editing, Visualization, Supervision, Project administration, Funding acquisition; **Julien Bouillé:** Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Writing - Review & Editing, Visualization, Supervision, Project administration, Funding acquisition; **Julien Troiville:** Conceptualization, Methodology, Validation, Investigation, Writing - Review & Editing

**Data availability**

Data used in each of the studies are available on OSF via the following link: <https://osf.io/g84sb/>.

## **Are you up for fair-trade products?**

### **Vertical dimension as a metaphorical representation of ethical consumption**

#### **Abstract**

This article examines vertical dimension as a metaphorical representation of ethical consumption by testing the connection between ethical consumption and high verticality, and its implications for consumers when considering fair-trade products. This research first shows that the representation of ethical consumption in terms of high verticality manifests in a strong implicit association between moral virtues underpinning fair-trade consumption (e.g., justice, solidarity) and “up” (Study 1). This research then demonstrates that consumers explicitly associate fair-trade products with an elevated position (Study 2), and that a match between fair-trade products and increased physical elevation results in heightened altruistic behavior (Study 3). In addition, this article reveals that greater familiarity with fair-trade products enhances this metaphorical representation and its downstream effects on altruistic behavior (Studies 2 and 3). The theoretical and managerial implications of the present research are discussed in conclusion.

**Keywords:** Fair trade, ethical consumption, conceptual metaphor, verticality, altruistic behavior.

## **Are you up for fair-trade products?**

### **Vertical dimension as a metaphorical representation of ethical consumption**

#### **1. Introduction**

Ethical consumption is commonly described as a solution that could allow companies to “pursue the moral high ground” (Irwin, 2015) and meet the demand from “upstanding consumers” (Baur, 2016). In this perspective, fair trade is “a high-minded endeavor” (Witkowski, 2005, p. 30) that intends “to lift the living conditions and welfare of the local producers” (Arnould, Plastina, & Ball, 2009, p. 188), and more specifically aims to “support small farmers in the Global South” (Abufarha, 2013). As a social movement, fair trade offers better prices, stable market links and resources for social and environmental projects, and provides consumers with product options that “uphold high social and environmental standards” (Raynolds, 2009, p. 1083).

These various descriptions of ethical consumption illustrate two main ideas. They present fair trade as a fundamental part of the moral economy, an “economics of virtue” (Nicholls, 2010), which highlights the value of meeting social obligations. As such, in comparison with the market economy, ethical consumption goes beyond the pursuit of profit and self-interest and may serve a greater good (Grayson, 2014; Karimova, Hoffmann, Heidbrink, & Hoffmann, 2020). From a practical perspective, ethical consumption is understood as the purchase of products “that have additional attributes (e.g., social, environmental, political, health, etc.) in addition to their immediate use-value, to signify commitment to their values and/or to support changes to unjust market practices” (Long & Murray, 2013, p.352). By purchasing fair-trade products, consumers contribute to a social movement that helps marginalized producers and workers, and secures their rights (Dragusanu, Giovannucci, & Nunn, 2014; Peattie & Samuel 2018). More broadly, consumers who buy fair trade products contribute to reducing the

inequalities between the producers and workers from the Global North and those from the Global South. This illustrates the universalism principle underpinning Fair Trade, which is embedded in the pricing of fair-trade products and which is driven by a set of moral values such as fairness, aptness and social usefulness (Murray & Raynolds, 2007). These descriptions also present the moral dimension of fair trade by employing metaphors that tap the vertical space (Bouillé, Basso, & Robert-Demontrond, 2016). Ethical consumers are “upstanding”, companies can take the “moral high ground” and be “high-minded”, fair trade intends to “support small farmers”, to “lift” their living conditions and to propose products that “uphold high” social standards. All these expressions reflect the use of concrete physical attributes related to the bodily experience of verticality to represent a more abstract concept, morality, which illustrates the “*virtue is up*” mapping identified and analyzed in the literature on conceptual metaphors and embodied cognition (Lakoff & Johnson, 1980, 1999).

Since the groundbreaking research on conceptual metaphors pioneered by Lakoff and Johnson (1980, 1999), many articles have shown that consumers employ metaphors to conceptualize abstract concepts by mapping a concrete dimension related to their embodied experience (Landau, Zhong, & Swanson, 2018). Various metaphorical connections to verticality have been experimentally tested in consumer behavior (Cian, 2017). For instance, literature has documented verticality as a concrete experience to represent cardinal direction (e.g., Nelson & Simmons, 2009), power (e.g., Sundar & Noseworthy, 2014) or rationality/emotions (Cian, Krishna, & Schwarz, 2015). However, while morality is frequently conceptualized in terms of vertical space (Kövecses, 2010), this metaphorical connection is still relatively unexplored in the literature (Dong, Huang, & Labroo, 2020; Wang, Shen, Song, & Phau, 2020), and, to our knowledge, has never been experimentally tested in the field of fair-trade consumption (Bouillé et al., 2016).

The purpose of this article is to investigate the conceptual metaphorical connection between ethical consumption and high verticality, how it manifests in consumers' responses to fair-trade practices and products, and to show its effect on altruistic behavior. In doing so, we also emphasize the role of familiarity in the metaphorical connection between fair trade and high verticality, and we demonstrate how it increases the effect of the vertical metaphor on consumer behavior. After discussing the conceptual foundations and the downstream consequences of a metaphorical connection between ethical consumption and high verticality, we posit our hypotheses and describe a series of three experimental studies designed to test them. We conclude by addressing the main contributions of this article along with research avenues.

## **2. Theoretical background**

### *2.1. The conceptual foundations of a metaphorical connection between ethical consumption and verticality*

Conceptual metaphor theory posits that people actually *think* rather than merely *talk* in metaphoric terms (Lakoff & Johnson 1980, 1999). Fundamentally, it is hypothesized that people employ metaphors to conceptualize abstract concepts by mapping a concrete dimension (source domain; e.g., verticality) related to their embodied experience (i.e. bodily states and sensorimotor modalities) onto an abstract concept (target domain; e.g., morality) that is not directly perceived through their senses to represent it. Consider, for instance, expressions such as: “to have *high* standards”, “to be *upright*”, “to be *underhanded*” or “*falling* from grace” (Lakoff & Johnson, 1980). These metaphors express the “*virtue is up*” or “*vice is down*” mappings and illustrate that the vertical dimension is employed to infer moral virtue or vice (Lakoff & Johnson, 1980, 1999; Meier, Sellbom, & Wygant, 2007b).

To explain the “*virtue is up*” metaphor, Lakoff and Johnson (1980, 1999) suggest that the metaphorical association between morality and verticality involves physical and social well-

being. Virtue is socially based because it is other-related. Actions are virtuous when they are in accordance with the standards set by the society to maintain and contribute to social well-being (e.g., Karimova et al., 2020, Vitell, 2015). However, well-being is also understood physically in terms of verticality because people cannot be upright without some degree of health (Gibbs, 2014). Being subject to gravity, rising or moving up requires some activity or effort, and is harder than falling or moving down (Crawford, 2014). In this perspective, “virtue is up” because to be virtuous requires one to be altruistic or other-oriented (social well-being) and active (physical well-being).

Remarkably, this explanation echoes research emphasizing that ethical consumption experiences, such as purchasing products whose profit goes to a good cause or products that help people in need, are other- rather than self-oriented (e.g., Cooper-Martin & Holbrook 1993; Vitell, 2015; see also, Campbell & Winterich, 2018). In support of this argument, universalism values, which are attached to societal concern such as equality for all, social justice and the preservation of the environment (Schwartz et al., 2012; Shaw, Grehan, Shiu, Hassan, & Thomson, 2005), have the strongest influence on the decision to consume fair-trade products (Doran, 2009). Additionally, it appears that ethical consumption experiences are active rather than passive (Cooper-Martin & Holbrook, 1993) and express a form of empowerment (Shaw, Newholm, & Dickinson, 2006). The active dimension that lies at the core of ethical consumption – and more broadly of any form of consumer social responsibility (Vitell, 2015) – is illustrated by various results in the literature on ethical consumption. For instance, consumers are usually required to seek (i.e. actively gather) or properly remember (i.e. actively retrieve) the missing negative ethical attribute information (e.g., unfair labor practices) about the products and services on the market (Ehrich & Irwin, 2005; Reczek et al., 2018). Consumers are more likely to give greater weight to ethical attributes when they make the effort (i.e. actively choose) to exclude the “bad” products presented to them (Irwin & Naylor,

2009). Consumers purchase fair-trade products when they believe that they can actually have an impact on (i.e. actively change) the living conditions of people in need and contribute to restoring justice (White, MacDonnell, & Ellard, 2012). By extension, when they are adversaries of mainstream consumption, consumers become “activists” (Kozinets & Handelman, 2004; see also Gopaldas, 2014), and the surge of fair-trade towns, such as Garstang in the UK, Poços de Caldas in Brazil, and Kumamoto City in Japan, illustrate activist-driven marketing systems (Peattie & Samuel, 2018).

These findings show that ethical consumption requires consumers to be active at various stages of the purchase decision-making process: when they have to collect missing information about ethical attributes, when they have to select ethical products by adopting a more demanding exclusion mode, and when they take into account the positive implications that can be attached to their ethical consumption choices. Overall, ethical consumption, and more specifically fair trade, is thus considered as mainly other- rather than self-oriented, and active rather than passive. This suggests that fair trade shares the physical and the social bases of the conceptual metaphor “virtue is up” identified in cognitive linguistics (Lakoff & Johnson, 1980, 1999). Formally, we first hypothesize that the virtues underpinning fair-trade consumption will be associated with high verticality (Hypothesis 1).

## *2.2. The downstream consequences of a metaphorical connection between ethical consumption and verticality*

### *2.2.1. Knowledge accessibility and conceptual metaphor*

Metaphor is commonly presented as an embellishment to language mostly used for decorative and communication purposes. Cognitive linguistics challenges this traditional view and posits that conceptual metaphors can shape thoughts and emotions, and influence actions (Lakoff & Johnson, 1980, 1999). In other words, a given metaphor can manifest in consumers’ responses, whether affective or cognitive, and have downstream consequences on behavior. In

support of this theorizing, literature has documented a metaphorical connection between verticality, morality thoughts and virtuous choices. For instance, research showed that high-pitched music increases accessibility of morality thoughts, which in turn increases the likelihood to engage in healthy activities considered virtuous and moral (Dong et al., 2020).

This result illustrates the fruitful complementarity between conceptual metaphors and the principle of knowledge accessibility to account for metaphorical effects (Cian et al., 2015; Lee & Schwarz, 2012; Sundar & Noseworthy, 2014). Accessibility refers to how readily a stored construct is coded in terms of a given category (Campbell & Kirmani, 2000; Higgins, 1996). It has been widely used in social cognition with a focus on knowledge activation elements that are directly (i.e. typically) related to a given category (e.g., Bargh, Chen, & Burrows, 1996; Campbell & Kirmani, 2000). For instance, being merely exposed to ethical product attributes induces altruistic behavior by activating thoughts related to social responsibility and ethical conduct (Mazar & Zhong, 2010).

Interestingly, conceptual metaphors complement accessibility to explain relations between concepts that are more indirectly related, or “superficially dissimilar” (Landau, Meier, & Keefer, 2010). For instance, being suspicious makes people more likely to smell something fishy, as expected from the metaphor “suspicious acts smell fishy” (Lee & Schwarz, 2012). Stimuli with rational connotations are placed higher on a screen than stimuli with emotional connotations, as suggested by the conceptual metaphors linking rationality with up and emotion with down (Cian et al., 2015). Along this line of argument, as expressed by the conceptual metaphor “virtue is up”, consumers may access typical metaphorically associated knowledge, and thus activate high verticality, when they are presented with ethical product attributes. We hypothesize that fair-trade products will be metaphorically connected to high verticality (Hypothesis 2).

#### *2.2.2. The role of processing fluency*



In addition to accessibility (conceptual activation), various studies have also pointed out processing fluency (conceptual match) as an underlying mechanism by which the metaphorical representation of a target concept (e.g., time, power, rationality/emotion) can then influence consumers' judgment and decision-making. Fluency is defined as the ease or difficulty with which external information can be processed (Schwarz, 2004). For instance, previous exposure to the same or related information about a product results in more fluent experience, which leads to consumers having a more favorable attitude toward a target product (Lee & Labroo, 2004). In its application to conceptual metaphors, it appears that when the presentation of a target matches (vs. mismatches) its metaphorical representation, processing fluency increases and yields more favorable evaluations (Chae & Hoegg, 2013; Cian et al., 2015; Sundar & Noseworthy, 2014; Wang et al., 2020). For instance, a match (vs. mismatch) between the physical verticality (higher/lower position) of a slogan and its rational/emotional nature generates more (vs. less) positive evaluations (Cian et al., 2015). Similarly, displaying an eco-friendly product up (vs. down) results in more positive product evaluations and higher purchase intentions when consumers perceive environmental issues as psychologically distant from (rather than proximal to) their daily lives (Wang et al., 2020).

Along this line of argument, this article emphasizes the complementarity between conceptual metaphors and underlying cognitive mechanisms such as accessibility (conceptual activation) and fluency (conceptual match) to account for metaphorical effects on consumer behavior. In this perspective, firstly, if being exposed to ethical product attributes activates altruistic responses (Mazar & Zhong, 2010), and secondly, if ethical product attributes may activate high verticality, we then suggest that a match between an ethical product attribute, such as fair trade, and high (vs. low) verticality may increase altruistic behavior. We thus hypothesize that a metaphorical match between fair-trade products and high verticality will increase altruistic behavior (Hypothesis 3).

### *2.2.3. The moderating effect of familiarity*

As described by the principle of applicability in metaphorical thought (Lee & Schwarz, 2012), the metaphorical representation associated with a given (product) category could be more accessible to consumers who consider this (product) category under the scope of the target domain of a conceptual metaphor. For instance, it has been shown that, while high-pitched music activates morality thoughts, it increases healthy choices only when consumers considered healthy food as moral (Dong et al., 2020). In other words, the perception of a given product category (healthy food) is influenced by the metaphorical connection between high pitch (source domain) and morality (target domain) if this product category is considered moral and is thus part of the target domain to which the vertical metaphor is applicable. Similarly, if being fairly traded is usually considered ethical by consumers, individual differences may exist in the extent of this belief, and moderate the metaphorical connection between fair-trade consumption and high verticality. We suggest that familiarity should increase the applicability of the “virtue is up” mapping to fair trade because consumers who are familiar with fair-trade products are more likely to consider fair-trade consumption as ethical (e.g., De Pelsmacker, Rayp, & Driesen, 2005; De Pelsmacker, Janssens, Sterckx, & Mielants, 2006), as they have been more exposed to ethical product packaging information or advertisements promoting the benefits of fair trade. Indeed, a greater familiarity means that consumers have accumulated more product-related experiences (Alba & Hutchinson, 1987) and that prior knowledge is enhanced qualitatively and quantitatively (Rao & Monroe, 1988). Familiarity should then heighten the metaphorical connection between fair trade and high verticality and its impact on consumers. We thus suggest that accumulated fair-trade product-related experience (measured in terms of familiarity and purchase frequency) may influence the extent to which the connection between ethical consumption and high verticality is made accessible and, therefore, moderate the downstream effects of the metaphorical match on altruistic behavior. In that

regard, we hypothesize that familiarity with fair-trade products will increase accessibility to the metaphorical connection with high verticality (Hypothesis 4) and thus that familiarity will moderate the effects of the metaphorical match on altruistic behavior (Hypothesis 5).

### **3. Overview of the studies**

We test our series of hypotheses in three main studies. We first test whether moral virtues underpinning fair-trade consumption are implicitly associated with up rather than down (Study 1). We then investigate whether fair-trade products are explicitly associated with an elevated position (Study 2). By merely indicating that a product is fair-trade (vs. conventional), Study 2 also allows us to investigate whether consumers access high verticality and whether accessibility to high verticality increases with familiarity. After showing the metaphorical connection between fair trade and high verticality and the moderating effect of familiarity, we test the downstream effects of a metaphorical match on behavior (Study 3). More specifically, we test whether physically elevating fair-trade products by placing them at height (vs. low down) enhances altruistic behavior. We also test whether this effect is more pronounced when consumers are more familiar with fair-trade products. Next, we discuss our series of studies.

### **4. Study 1**

In Study 1, we used the implicit association test (IAT) to examine whether moral virtues that lie at the core of fair trade are associated with up (Hypothesis 1). The IAT is a computer-based categorization task designed to assess the relative strengths of association among concepts by using participants' reaction times (Greenwald, McGhee, & Schwartz, 1998). This procedure has been successfully employed to investigate the automaticity of metaphoric links in consumer research (e.g., Cian et al., 2015, Nelson & Simmons, 2009). For instance, it has been shown that people are faster to associate rationality rather than emotion with up, and emotion rather than rationality with down (Cian et al., 2015). In this study, we tested whether

participants were faster to pair virtue with up and vice with down, than to pair virtue with down and vice with up.

#### 4.1. Method

##### 4.1.1. Participants and procedure.

One hundred and sixty-three undergraduate students in human and social sciences from a large French university participated in this study (Female = 102;  $M_{\text{age}} = 18.15$  [min: 18; max: 20];  $SD = .39$ ) and were entered into a prize draw for gift vouchers. They were asked to enter responses using the left [E] and right [I] keys of the keyboard to classify as quickly and correctly as possible the stimuli shown in the middle of a computer screen into the category names (“virtue”–“vice” and/or “up”–“down”) that were placed on the upper left and upper right of the screen.

We selected five of the virtues (*justice, solidarity, transparency, patience, wisdom*) that inspire ethical consumption (Micheletti, 2003). Their antonyms served to illustrate vice (*injustice, selfishness, corruption, impatience, ignorance*). An additional set of ten words served as exemplars of up (*top, tall, higher, over, maximum*) and down (*bottom, short, lower, under, minimum*).

These stimuli were randomly presented according to the standard experimental protocol for IAT studies (Greenwald, Nosek, & Banaji, 2003) implemented on Inquisit software. Blocks 1, 2, and 5 were “practice blocks” of 20 trials each to train participants in the procedure. In the first and second blocks participants respectively learned to categorize the exemplars of virtue and vice, and up and down. In the fifth block, the task in Block 1 was reversed and participants learned a new key mapping. For instance, if the category “virtue” was displayed on the upper left in Block 1; in Block 5, it was displayed on the upper right and participants had then to press the right key to classify an exemplar in this category. Blocks 3, 4, 6, and 7 were “measurement blocks” in which participants were randomly presented with exemplars from

one of the four categories. Blocks 3 and 4 were compatible blocks of 20 and 40 trials in which virtue (vice) was paired with up (down). Blocks 6 and 7 were incompatible blocks of 20 and 40 trials in which virtue (vice) was paired with down (up). To minimize order effects, the order of blocks was automatically counterbalanced across participants, who were randomly assigned to the compatible or the incompatible test first. Half of them did compatible trials first (the block sequence 1–2–3–4–5–6–7) and the other half did incompatible trials first (the block sequence 5–2–6–7–1–3–4). The position of the four categories on the upper left and upper right of the screen was also counterbalanced between subjects. When participants pressed the wrong key, a red cross appeared centrally, and remained until the correct key was pressed. After completing the IAT, participants were asked to rate the valence of each stimulus on a 7-point scale (1 = “*Very negative*” / 7 = “*Very positive*”).

#### 4.1.2. Data preparation

We followed the improved IAT scoring algorithm to calculate  $D$  scores that measure the strength of association between concepts (Greenwald et al., 2003). We excluded participants (none) from the analyses if 10% of their latencies were shorter than 300ms, and we discarded participant response latencies longer than 10,000ms (2 out of 19,560 trials) and shorter than 300ms (5 out of 19,560 trials). We then computed the mean latency for responses of each of Blocks 3, 4, 6, and 7 and the inclusive standard deviation for all trials in Blocks 3 and 6 and for all trials in Blocks 4 and 7. We calculated the two mean differences ( $M_{\text{Block6}} - M_{\text{Block3}}$ ) and ( $M_{\text{Block7}} - M_{\text{Block4}}$ ) and divided each difference score by its associated inclusive standard deviation to compute the  $D$  score as the equal-weight average of these two ratios.

#### 4.2. Results

Responses showed that participants were significantly faster in the compatible blocks where they were asked to pair virtue with up and vice with down ( $M = 962.69\text{ms}$ ;  $SD = 238.57$ ) than in the incompatible blocks where they were asked to pair virtue with down and vice with

up ( $M = 1287.79\text{ms}$ ;  $SD = 333.37$ ; paired samples  $t$ -test  $t(162) = -12.70$ ,  $p < .001$ ,  $d = 1.12$ ). The resulting positive  $D$  score (IAT  $D$  effect = .59) thus revealed a strong automatic association between virtue and up and vice and down, which supports Hypothesis 1 (see Figure A.1 in supplementary material). Analyses on explicit measures further confirmed that the words associated with virtue ( $M = 6.13$ ;  $SD = .47$ ) and with up ( $M = 4.99$ ;  $SD = .68$ ) were respectively rated more positively than the words associated with vice ( $M = 1.69$ ;  $SD = .38$ ;  $t(162) = 76.65$ ,  $p < .001$ ,  $d = 10.27$ ) and with down ( $M = 3.07$ ;  $SD = .59$ ;  $t(162) = 20.54$ ,  $p < .001$ ,  $d = 2.97$ ) (Meier, Hauser, Robinson, Friesen, & Schjeldahl, 2007a; Meier & Robinson, 2004).

### 4.3. Discussion

As expected from the “virtue is up” and “vice is down” metaphorical mappings, results from the IAT showed that virtue is strongly associated with up and, conversely, that vice is strongly associated with down. These results are in favor of a metaphorical connection between ethical consumption and high verticality (Hypothesis 1). However, we cannot exclude that such an association is not due to polarity differences and polarity correspondence rather than metaphorical mappings (Lakens, 2012). Indeed, it has been shown that when there is polarity correspondence, “+polar” endpoints, such as moral and up, are categorized faster than “-polar” endpoints of dimensions such as immoral and down. Moreover, stimuli are easier to process when their polarities correspond. This means that virtue could have been paired with up because virtue and up are both of positive valence and not because they are metaphorically linked at a conceptual level. Last, this study did not involve a manipulation of verticality that is independent of linguistic categories (Meier et al., 2007a). We conducted the subsequent studies to address these limitations.

## 5. Study 2

Study 2 further examined the metaphorical connection between fair-trade consumption and high verticality by testing whether participants associate a fair-trade product (coffee) with an

elevated position (Hypothesis 2). This study also examined whether this effect increased with familiarity (Hypothesis 4).

### *5.1. Method*

*Participants.* One hundred and twenty-two participants (Female = 73;  $M_{\text{age}} = 36.66$  [min: 20; max: 77];  $SD = 12.34$ ) from the United States completed the study in exchange for monetary compensation and were recruited online through Amazon's Mechanical Turk (mTurk), whose quality and diversity can increase the validity of this research (Buhrmester, Kwang, & Gosling, 2011, Goodman & Paolacci, 2017). At the end of the study, participants completed a voluntary withdrawal question asking whether they answered with care and diligence, explicitly stating that there would be no penalty for answering 'no'. No participants were excluded from the study.

*Procedure.* In this study, we used an online task adapted from the paper-and-pencil vertical task developed to test the "good is up" metaphorical mapping (Casasanto, 2009). In the original version of this task, participants were presented with two boxes located either above or below a cartoon figure and were told that a cartoon character who was planning a trip to the zoo loves zebras and thinks they are good but hates pandas and thinks they are bad. Their task was to draw a zebra in the box that best represents good things like seeing zebras, and a panda in the box that best represents bad things like seeing pandas. As expected from the association between valence and verticality ("good is up" mapping), it was found that a significant majority of participants drew the good animal in the top box and the bad animal in the bottom box (Casasanto, 2009).

In the present study, there were two differences to the original version of this vertical task. First, via Qualtrics, we adapted it to an online setting in which participants did not have to draw but to drag and drop the picture of a given product in a box. Second, instructions did not

specify any preference between the two items because this study was designed to test whether an ethical product was more likely than a conventional product to be placed in the top box.

Instructions described a coffee lover depicted as a cartoon figure who buys fair-trade and conventional coffee when shopping. Participants were then told to drag and drop in the top box, the picture of the coffee bag that they think this person would prefer, and in the other box, the picture of the other coffee. The boxes were located either above or below the cartoon figure (see Figure A.2 in supplementary material). In order to avoid ordering effects, which coffee (fair-trade or conventional) was mentioned or pictured first was counterbalanced across participants using the automated block randomizer in Qualtrics.

After completing the vertical task, participants were asked to evaluate their familiarity with each kind of coffee on two different 7-point scales whose presentation order was also counterbalanced across participants (*“How familiar are you with fair-trade/conventional coffee?”*; 1 = *“Very unfamiliar”* / 7 = *“Very familiar”*; *“How frequently do you purchase fair-trade/conventional coffee?”*; 1 = *“Very infrequently”* / 7 = *“Very frequently”*). The scales measuring familiarity with fair-trade coffee (split-half reliability coefficient = .76) and those measuring familiarity with conventional coffee (split-half reliability coefficient = .79) were respectively averaged (Eisinga, te Grotenhuis, & Pelzer, 2013; Hulin & Cudeck, 2001).

## 5.2. Results

As predicted, the fair-trade product was significantly associated with an elevated position by the majority of participants (75 out of 122), in 61% of the cases (sign test,  $p = .014$ ), which supports Hypothesis 2 (see Figure 1).

-- Insert Figure 1 here --

As predicted, further analyses revealed a significant association between familiarity with fair-trade coffee and an elevated position of fair-trade coffee. Results revealed that greater familiarity with conventional coffee did not predict the association of conventional coffee with



a higher position ( $\chi^2(1) = .962, p = .327; \beta = -.105, SE = .108, \text{Wald } Z = .946, p = .331$ ; odds ratio = .900); whereas greater familiarity with fair-trade coffee significantly predicted the association of fair-trade coffee with a higher position ( $\chi^2(1) = 4.239, p = .040; \beta = .237, SE = .117, \text{Wald } Z = 4.09, p = .043$ ; odds ratio = 1.267). The odds ratio (1.267) indicated that a 1-point increase in the familiarity score was associated with a 26.70% increase in the probability of associating the fair-trade coffee with the elevated position, which further supports Hypothesis 4.

### 5.3. Discussion

As expected, Study 2 found that fair-trade coffee is more strongly associated with an elevated position than its conventional counterpart (Hypothesis 2), and that this association is more pronounced when participants are more familiar with fair-trade coffee (Hypothesis 4). Together, these results further support a metaphorical connection between fair-trade consumption and high verticality and also its moderation by individual differences (familiarity with a fair-trade product).

Moreover, analyses allowed us to rule out an alternative explanation in terms of “good is up” mapping. Indeed, literature shows that what is familiar is preferred and positively valued (e.g., Meyers-Levy, 1989) and that what is positively valued is metaphorically connected with up (e.g., Casasanto, 2009, Lakoff & Johnson, 1980, 1999, Meier & Robinson, 2004). Along this line of argument, a “good is up” mapping predicts that the greater the familiarity with fair-trade products, the more the participants are likely to place these products higher along the vertical axis when compared with conventional products; and, conversely, that the greater the familiarity with conventional products, the more the participants are likely to place these products higher along the vertical axis when compared with fair-trade products. To the contrary, the “virtue is up” mapping together with the concept of accessibility predict that this effect holds only for fair-trade products. Results supported the latter prediction, suggesting

that participants did not merely infer an elevated position from their greater familiarity with a given product category, but only from their greater familiarity with the fair-trade one.

Whereas the instructions did not specify any preference between fair-trade and conventional coffee, we cannot exclude the possibility that the participants thought that the character actually preferred the fair-trade coffee over the conventional coffee, and thus placed the fair-trade coffee in the top box, where the preferred product was supposed to be placed. In other words, the fair-trade coffee may have been associated with an elevated position, not merely because it is fair trade, but because it was considered to be the preferred coffee. In a follow-up study, reported in supplementary material (see Study A.1), we have thus rephrased the instructions given to the participants, and removed any reference to the character's "preference". Study A.1 results confirmed findings from Study 2, supporting Hypotheses 2 and 4, and ruled out the potential confounding effect of a reference to the character's preference.

Overall, the previous studies consistently showed a conceptual metaphorical connection between fair-trade consumption and high verticality which manifests in a strong automatic association between the virtues of fair-trade consumption and up (Study 1), and in responses to fairly traded products through physical elevation (Study 2). The subsequent study investigated the downstream effects of this metaphorical connection on altruistic behavior.

## **6. Study 3**

The main objective of Study 3 was to test the effects of a metaphorical match between an increased elevated position and fair-trade products on altruistic behavior (Hypothesis 3), and whether such downstream effects were moderated by familiarity (Hypothesis 5).

### *6.1. Method*

#### *6.1.1. Participants*

Sixty-three undergraduate and graduate students in human and social sciences from a large French university (Female = 42;  $M_{\text{age}} = 23.24$  [min: 20; max: 38];  $SD = 3.06$ ) completed

the study in exchange for monetary compensation. Participants voluntarily enrolled in the study by selecting one of the four time slots per half day advertised by the experimenter, and every half day was then randomly allocated to one of the two conditions of the experiment (increased vs. decreased elevation). Data analyses show that there was no difference in terms of age ( $t(61) = .94, p = .353$ ) and gender ( $\chi^2(1) = .51, p = .48$ ) between the groups.

### *6.1.2. Procedure*

As a cover story, participants were told that the study dealt with the layout of product categories on shelves in grocery stores. After completing all the experimental sessions, the real purpose of the study was revealed to every participant. Participants were first asked to catalog 22 labelled fair-trade products (e.g., humus, olive oil, chocolate, coffee) according to an inventory list and were then required to store each of these 22 fair-trade products, one-by-one, at the top or at the bottom of a 4-level shelf according to their assigned condition. In the increased elevation condition, participants ( $N = 32$ ) were presented with the fair-trade products initially placed on the floor while 22 conventional products, which did not differ in number of product categories, were already stored on the two lower levels (11 per level). By storing the fair-trade products on the two top levels (11 per level), the participants thus moved the fair-trade products up high (from the floor to the highest levels of the shelf). Conversely, in the decreased elevation condition, participants ( $N = 31$ ) were presented with the conventional products stored on the two top levels and the fair-trade products initially placed on a standing table, and thus, one-by-one, moved the fair-trade products low down (from the standing table to the lowest levels of the shelf; see Figure A.3 in supplementary material). The fair-trade products and their conventional counterparts used in this study are listed in Table A.1 in supplementary material. After storing the products high up or low down on the shelf, participants were paid (€5) and completed two unrelated tasks (namely, to count that they had been given 10 coins of 50 cents before putting these coins in their purse, and then to select a product they would have liked to

take home). They were then informed that they had the opportunity to donate some, or all, of their monetary compensation to an ethical organization (consumer cooperative), measuring their altruistic behavior. Donations were donated to the consumer cooperative upon completion of the study. Afterwards, they were told that they could perform up to two permutations between shelf levels by swapping a shelf level displaying fair-trade products with a shelf level displaying conventional products. Participants were thus given the opportunity to move a shelf level displaying ethical products up (in the decreased elevation condition) or down (in the increased elevation condition).

Last, they were asked to report their familiarity with fair-trade products on two different 7-point scales (“*How familiar are you with products like those you have stored on the shelf?*”, 1 = “*Not familiar at all*” / 7 = “*Very familiar*”; “*How frequently do you purchase products like those you have stored on the shelf?*”, 1 = “*Not frequently at all*” / 7 = “*Very frequently*”; split-half reliability coefficient = .77), along with manipulation check measures: quality, popularity, price perceptions, levels of motivation, task difficulty (1 = “*Not at all*” / 7 = “*Very*”; (Valenzuela & Raghurir, 2015), and their height. Analyses showed that there were no differences in purchase frequency, familiarity, and manipulation check measures between the conditions (all  $ps > .355$ ). Note that the end-point labels were different from Study 2 to be correctly expressed in French.

## 6.2. Results

### 6.2.1. Donations

As predicted, altruistic behavior (donations) increased after storing fair-trade products up high ( $M = €3.48$ ;  $SD = 1.74$ ) (vs. low down;  $M = €2.55$ ;  $SD = 1.89$ ;  $t(61) = 2.04$ ,  $p = .045$ ,  $d = .51$ ), which supports Hypothesis 3.

### 6.2.2. Moderation analysis

In order to examine whether the effect of increased physical elevation on altruistic behavior was more pronounced when participants are more familiar with fair-trade products, we conducted a spotlight analysis at  $\pm 1$  *SD* from the mean familiarity with fair-trade products using PROCESS Model 1 (Hayes 2018).

As expected, including elevation as the predictor variable (0 = Down, 1 = Up), donations as the dependent variable, and familiarity with fair-trade products as the moderator; a moderation analysis revealed a marginally significant interaction between elevation and familiarity ( $t(59) = 1.84, p = .070$ ; see Figure 2).

Spotlight analyses showed that, under high familiarity ( $+1$  *SD* = 5.01), elevation significantly affected altruistic behavior such that donations were higher in the increased elevation condition ( $M = €3.96$ ) than in the decreased elevation condition ( $M = €2.20$ ),  $\beta = 1.76, SE = .65, t = 2.71, p = .009, 95\% CI [.46, 3.06]$ . To the contrary, under low familiarity ( $-1$  *SD* = 1.55), elevation did not significantly affect donations (increased elevation condition:  $M = €2.90$ ; decreased elevation condition:  $M = €2.83$ ;  $\beta = .07, SE = .64, t = .11, p = .915, 95\% CI [-1.21, 1.35]$ ). These results support Hypothesis 5.

-- Insert Figure 2 here --

### 6.2.3. Additional analyses

Furthermore, results showed that 23 out of 31 (74.2%) participants swapped, at least once, a shelf level displaying fair-trade products with a shelf level displaying conventional products after storing the fair-trade products on the bottom shelf levels in the decreased elevation condition; whereas only 13 out of 32 (40%) participants swapped shelf levels in the increased elevation condition ( $\chi^2(1) = 7.25, p = .007$ , Cramer's  $V = .34$ ), which supports Hypothesis 2.

*Moderation analysis.* In order to examine whether these effects were more pronounced when participants are more familiar with fair-trade products, we conducted a spotlight analysis at  $\pm 1$  *SD* from the mean familiarity with fair-trade products using PROCESS Model 1 (Hayes 2018). As expected, including elevation as the predictor variable (0 = Down, 1 = Up), swaps as the dependent variable (0 = No shelf level swapped, 1 = At least one shelf level swapped), and familiarity with fair-trade products as the moderator; a moderated logistic regression revealed a significant interaction between elevation and familiarity ( $\beta = -1.20$ ,  $SE = .49$ , Wald  $Z = -2.46$ ,  $p = .014$ , 95% *CI*  $[-2.17, -.245]$ ). More specifically, spotlight analyses showed that, under high familiarity, the likelihood of swapping at least one shelf level displaying fair-trade products with a shelf level displaying conventional products was significantly higher in the decreased elevation condition (95.60%) than in the increased elevation condition (26.50%) ( $\beta = -4.09$ ,  $SE = 1.41$ , Wald  $Z = -2.91$ ,  $p = .004$ , 95% *CI*  $[-6.85, -1.33]$ ). To the contrary, under low familiarity, the likelihood of swapping shelf levels was similar in the decreased elevation condition (53.70%) and in the increased elevation condition (57.70%) ( $\beta = .16$ ,  $SE = .77$ , Wald  $Z = .21$ ,  $p = .835$ , 95% *CI*  $[-1.35, 1.68]$ ). These results support Hypothesis 4.

### 6.3. Discussion

As predicted, donations significantly increased after storing fair-trade products up high (vs. low down), which shows that a metaphorical match between fair-trade products and increased physical elevation enhanced altruistic behavior (Hypothesis 3). As expected, this effect was more pronounced when participants are more familiar with fair-trade products (Hypothesis 5). Additionally, this study also confirmed that participants are more likely to associate fair-trade products with a higher position along the vertical axis (Hypothesis 2), especially when familiarity increases (Hypothesis 4).

Overall, Study 3 further demonstrated the conceptual metaphorical connection between fair-trade consumption and high verticality by showing the downstream effects of a metaphorical

match on altruistic behavior and their moderation by individual differences (familiarity with fair-trade products).

## **7. General discussion**

Research has consistently shown that consumers employ metaphors to conceptualize abstract concepts by mapping a concrete dimension related to their embodied experience (Landau et al., 2018). Across a series of three studies, the present research empirically examined the metaphorical connection between ethical consumption and high verticality, and its implications for consumers when considering ethical product attributes (see Table 1 for a summary of the hypotheses tested in this research). We revealed a strong implicit association between values inspiring fair-trade consumption and high verticality (Study 1), which supports the “virtue is up” mapping identified in cognitive linguistics (Lakoff & Johnson, 1980, 1999). This result suggests that consumers may use their concrete physical experience of verticality to represent virtuous consumption. In support of this theorizing, we then showed that this metaphorical representation of virtue shapes consumers’ responses to ethical product attributes. Namely, we found that consumers associate fair-trade products with an elevated position (Study 2) and that a match between fair-trade products and their vertical metaphorical representation has downstream effects on altruistic behavior (Study 3). Interestingly, a greater familiarity with fair-trade products enhanced these effects (Studies 2 and 3). In the subsequent paragraphs, we outline the main contributions of these findings and discuss research avenues.

-- Insert Table 1 here --

### *7.1. Theoretical contributions*

The present research makes several contributions to the literature on ethical consumption and conceptual metaphor theory in business research.

One of the key contributions of this article is to be the first to empirically test and demonstrate that fair-trade consumption is metaphorically represented in terms of high verticality. In this

perspective, these results add to the theoretical and empirical literature and fair-trade consumption in business research (Andorfer & Liebe, 2012). This article extends the theoretical toolbox developed thus far to approach “responsible consumption” and its related “sustainability mindset” which characterize the internalization of a sense of environmental, ethical, and social responsibilities (Lim, 2017). Indeed, by applying the conceptual metaphor theory to fair trade, we show that an essential aspect of the cognitive underpinnings of this mindset, in relation to ethical responsibility, is the conceptual metaphor “virtue is up” which maps verticality onto fair-trade consumption. We also demonstrate the behavioral expression of this metaphorical association by showing that an ethical product attribute activates high verticality in the form of physical elevation. In doing so, this article thus contributes to the literature that investigates the representation of ethicality among consumers (e.g., Brunk, 2010). Additionally, this research empirically documents and tests the effect of the conceptual metaphor underlying the representation of fair trade and some of its associated values on altruistic behavior. This extends previous findings showing that an ethical (green) product attribute activates altruistic actions (Mazar & Zhong, 2010) and that high verticality cues moral decisions (Dong et al., 2020).

Importantly, this article shows that the vertical metaphor representation, and its downstream consequences on altruistic behavior, are more salient among consumers who are high-familiar with fair trade. Indeed, in the context of this research, we consistently found that the greater the familiarity with fair-trade products, the greater the likelihood that consumers consider these products as a target domain to which the metaphorical connection with high verticality is applicable. Given that familiarity expresses accumulated product-related experiences (Alba & Hutchinson, 1987), this article highlights verticality as an essential dimension that structures the representation of fair-trade products among consumers who are more knowledgeable. The present research thus further refines the growing literature on



conceptual metaphor theory by adding familiarity to the range of mechanisms that influence metaphorical thought. This article also contributes to the growing literature on conceptual metaphor theory in business research by extending the groundwork for future research into the metaphorical representation of responsible consumption among consumers (Wang et al., 2020). Namely, by showing that greater familiarity with fair-trade products enhances accessibility to high verticality to represent ethical product attributes and reinforces the downstream effects of the metaphorical match on altruistic behavior (Studies 2 and 3), this article suggests that the moderating effect of familiarity on a metaphorical connection may apply to other types of responsible products (e.g., green products).

### *7.2. Managerial implications*

From a more managerial point of view, this article highlights some psychological and behavioral insights to improve the marketing and promotion of fairly traded products. Indeed, even if fair trade is praised highly by consumers, it still holds a minority place in the market (e.g., Govind, Singh, Garg, & D'Silva, 2019). One main explanation is that behavioral intentions do not translate into actual buying behavior in supermarkets, illustrating the intention-behavior gap identified in psychology and business research (e.g., Carrington, Neville, & Whitwell, 2014; Sudbury-Riley & Kohlbacher, 2016). Literature explored various reasons to explain why consumers fail to consume ethically, and to provide solutions to motivate ethical consumption (Carrington, Neville, & Whitwell, 2010) and develop fair-trade market share and revenues. To do so, fair-trade manufacturers and retailers already have several operational techniques and tools to apply. For instance, the values attached to the representation of ethical consumption should be made more salient and concrete to further promote fair-trade products (e.g., Davies & Gutsche, 2016; Micheletti, 2003). An alternative technique is to motivate ethical consumption with rational arguments through ethical labels or detailed ethical product information (e.g., Gleim, Smith, Andrews, & Cronin, 2013). Building

upon sensory marketing (e.g., Biswas, 2019; Krishna, 2012;), retailers may engage consumers with ethical products by inducing an emotional connection (Yoganathan, Osburg, & Akhtar, 2019).

Adopting a similar perspective inspired by the embodied cognition framework (e.g., Krishna & Schwarz, 2014; von Wallpach & Kreuzer, 2013), the present findings argue that it could be worthwhile to engage consumers by inducing a metaphorical connection. In other words, marketing managers from companies with fairly traded products in their portfolios as well as retailers should consider the benefits of inducing the metaphorical connection with high verticality to help consumers concretize their ethical dimension and more effectively promote their products. For instance, given that consumers associate fair-trade products with an elevated position, it should be ensured that they are placed up high on in-store displays or in the high/upper visual field of a printed or an online page, which would provide consumers with a more fluent experience of fair-trade products. Such a behavioral tactic could help overcome some limitations showing that consumers may actually be insensitive to persuasive messages that promote fair-trade products on moral grounds (Eckhardt, Belk, & Devinney, 2010).

Interestingly, this behavioral tactic may also work synergistically with charity-linked products. The present research found that a match between fair-trade products and an elevated position results in heightened altruistic behavior. This finding suggests that associating ethical products with a higher physical placement may foster donations toward charity appeals to support fair-trade related activities, especially among consumers who are more familiar with fair trade. In this perspective, our results on the moderating effect of familiarity call for a differentiation between low- and high-familiar consumers when implementing marketing strategies for companies that promote fair-trade products and collect charitable donations. In essence, such strategies should first aim to take place in stores more frequently patronized by high-familiar consumers when fair-trade products are up-displayed.

More generally, the effectiveness of this in-store marketing technique may benefit consumers, producers and retailers in a win-win-win scenario. First, an elevated position may facilitate the identification of fair-trade products when shopping, simplifying consumers' decision process and lowering searching costs (Mantrala et al., 2009). Indeed, positioning fair-trade products on upper shelves brings convenience as it leads to an efficient perception of the assortment (Broniarczyk, Hoyer, & McAlister, 1998). As aforementioned, this solution would also provide a more fluent shopping experience to high-familiar consumers. Second, placing fair-trade products up high on in-store displays may benefit fair-trade producers who can better promote their range within stores and therefore increase sales and profitability in the long-term. This is especially worthwhile for fair-trade producers as they frequently offer niche brands with low market share that may be overlooked by retailers. This may also help further convey the virtuous dimensions of fair-trade products to low-familiar consumers patronizing grocery stores. These consumers will become more knowledgeable of the benefits of fair trade, which in turn may increase their loyalty to fairly traded products. Third, retailers may take advantage of the aforementioned efficiency of the assortment since consumers are more loyal to a store as long as they easily find the products they are looking for (Broniarczyk et al., 1998). Additionally, retailers should also be able to better negotiate with fair-trade producers the advantage of a specific and adapted shelf-space position for their products, therefore increasing margins and their power in vertical channel relationships (Krafft, Goetz, Mantrala, Sotgiu, & Tillmanns, 2015).

Moreover, our results help inform segmented marketing strategies to promote fair-trade products. Indeed, the metaphorical connection between verticality and fair trade is more accessible for high-familiar than for low-familiar consumers. Thus, from a marketing perspective, marketers may keep using high verticality to make low-familiar consumers more mindful of the virtue and benefits of fair trade. However, it may also be worthwhile to consider

additional or alternative metaphors to communicate on certain aspects of fair trade which are not elicited or highlighted by the vertical metaphor but are likely to further improve high-familiar consumers' attitude toward ethical consumption. For instance, research indicates that the container metaphor which emphasizes inclusion (or exclusion) is commonly used as an alternative source domain to the vertical metaphor in order to communicate ethical consumption (Bouillé et al., 2016). Fair trade may then be presented and promoted as a solution that comes in “support of the out-group” (Doran, 2010) to help producers who have been “marginalized”, “excluded” or “left out” from globalization (container metaphor), in addition to a solution that aims to help “small farmers from the Global South” (vertical metaphor).

### *7.3. Limitations and research avenues*

These empirical findings come with limitations that might serve as a basis for future research. First, while ethical consumption is frequently understood in terms of high verticality, morality is one of the most common target domains of various conceptual metaphors (Kövecses, 2010) and a classic illustration of “metaphorical pluralism” (Brandt & Reyna, 2011; Lakoff & Johnson, 1980, 1999). For instance, experimental evidence shows that morality is commonly understood in terms of light/brightness (e.g., Sherman & Clore, 2009) or purity/cleanliness (e.g., Lee & Schwarz, 2010; Zhong & Liljenquist, 2006). Future research could therefore investigate the influence of these various concrete experiences (brightness, cleanliness) in the metaphorical representations of ethical consumption, and test whether their manipulation can improve the marketing of fair-trade products. Indeed, these are other possible concrete experiences that could be invoked by inducing a metaphorical connection to engage consumers with ethical products. Another research avenue could be to identify the boundary conditions of vertical metaphors. Verticality has been metaphorically associated to various concepts such as magnitude in prior literature (“*more is up*”; Lakoff & Johnson, 1980, 1999). The present research showed that donations significantly increased after storing fair-trade

products up high (vs. low down) and that this effect is more pronounced when participants are more familiar with fairly traded products (Study 3), further supporting the metaphorical connection between virtue (fair-trade consumption) and up (high verticality) identified beforehand (Studies 1 and 2). A possible complementary explanation for these results is that storing fair-trade products up high (vs. low down) might have increased (vs. decreased) the prioritization (or perceived prominence) of fair trade, as would be expected from the “more is up” metaphor (Lakoff & Johnson, 1980, 1999). Along this line of argument, given that consumers who are more familiar with fair-trade products are those who tend to prioritize these products, they might have been more willing to donate in the increased (vs. decreased) elevation condition where fair-trade products were prioritized (vs. de-prioritized), whereas consumers who are less familiar with fair trade products might have been less sensitive to prioritization (vs. de-prioritization)<sup>1</sup>. In other words, increased (vs. decreased) elevation might have enhanced the perceived importance of fair-trade products (as predicted by the “more is up” metaphor) rather than their virtuous dimension (as predicted by the “virtue is up” metaphor). Results from Studies 1 and 2, as well as the absence of significant difference in perceived quality, popularity and price of the fairly traded products between the increased and the decreased elevation conditions, lend support to an interpretation in terms of “virtue is up” metaphor rather than “more is up” metaphor. However, fair-trade products might be considered (more) important and merit prioritization because they are (more) virtuous, and not because of their perceived quality, popularity and price (as it usually stands for conventional products). Future research might thus explore, under which conditions (e.g., conventional or fair-trade product category), verticality conveys metaphorical associations in terms of importance (“more is up”), with downstream effects on perceived product dimensions, rather than metaphorical associations in terms of virtue (“virtue is up”), with downstream effects on

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<sup>1</sup> We thank an anonymous reviewer for suggesting this point.

prosocial behaviour. Such research could contribute to developing more specific managerial implications that would indicate which dimensions of fairly traded products are enhanced and prioritized by consumers when they are placed up high on shelves.

Second, this article focused on fairly traded products, but research shows that eco-friendly products are also represented in terms of vertical metaphor (Wang et al., 2020). Since these products instantiate ethical and responsible consumption, future research may thus test whether the presentation of green products can in turn activate high verticality and lead to virtuous actions (e.g., recycling, eating more healthily, making donations) when they are matched with an elevated position, especially among green consumers.

Last, we focused on familiarity with fair-trade products to show that consumers' knowledge enhances accessibility to high verticality to represent ethical product attributes and the downstream effects of the metaphorical match on altruistic behavior. Future research may investigate whether the moderating effect of familiarity on a metaphorical connection can extend to other types of responsible products (e.g., eco-friendly products). More fundamentally, it may also be worthwhile to investigate the moderating effects of other individual differences that are relevant to ethical consumption, such as ethically-minded behavior (Sudbury-Riley & Kohlbacher, 2016) or universalism values (Doran, 2009; Shaw et al., 2005). Indeed, since literature shows that the accessibility of a metaphorical association between two concepts can be significantly influenced by chronic predispositions (Hung & Labroo, 2011; Landau et al., 2010), future research on ethical consumption may test whether the accessibility of the metaphorical association between fair-trade products and high verticality is increased among consumers who are ethically minded (Sudbury-Riley & Kohlbacher, 2016) or hold universalism values important (Doran, 2009; Shaw et al., 2005).

## **8. Conclusion**

To our knowledge, the present research is the first to investigate and test the metaphorical connection between fair-trade consumption and high verticality, and its effects on consumers in their consideration of fair-trade products. We have provided evidence that this deep-seated vertical metaphorical representation manifests in a strong implicit association between moral virtues underpinning fair-trade consumption and high verticality, which indicates that consumers employ their concrete physical experience of verticality to represent virtuous consumption. Consistently, we demonstrated that the metaphorical representation of virtue in terms of high verticality shapes behavioral responses to fairly traded products. More specifically, we showed that consumers associate fair-trade products with high verticality, and that placing fair-trade products at height increases altruistic behavior. In doing so, our results further contribute to the emerging literature on ethical consumption and conceptual metaphor theory in business research (e.g., Wang et al., 2020), and extend prior findings showing that altruistic actions can be activated by an ethical product attribute (Mazar & Zhong, 2010) and that moral decisions can be cued by high verticality (Dong et al., 2020). Additionally, we also found that the metaphorical representation of fair-trade products in terms of verticality, and its related effects on altruistic behavior, are more salient among consumers who are high-familiar with fair trade, which further refine the research on embodied metaphors and consumer behavior (e.g., Landau et al., 2018). In this perspective, our results indicate that embodied metaphors may help producers and retailers further engage consumers with fair-trade products. Placing fair-trade products up high on in-store displays or in upper visual fields of digital environments, for instance, may improve the marketing of fairly traded products by making more salient and concrete the values attached to them in consumers' minds. Associating fair-trade consumption with an elevated position may also prove particularly relevant to promote fair-trade products and collect charitable donations, and to provide high-familiar consumers

with a more fluent experience of fair-trade products. Hopefully, this research will help to further convince consumers to be up for fair-trade products.



**Informed consent**

Informed consent was obtained from all individual participants included in this series of studies, and all procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

**Declaration of Competing Interest**

The authors declare that they have no conflict of interest.

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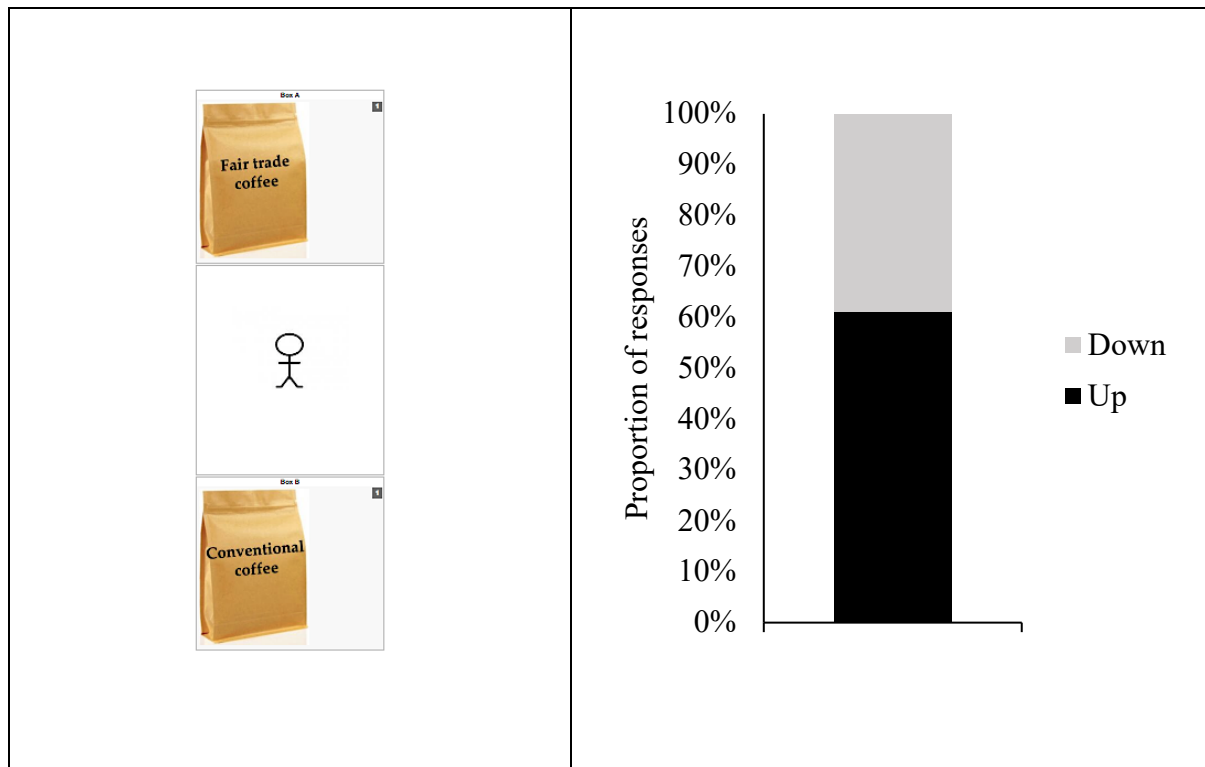
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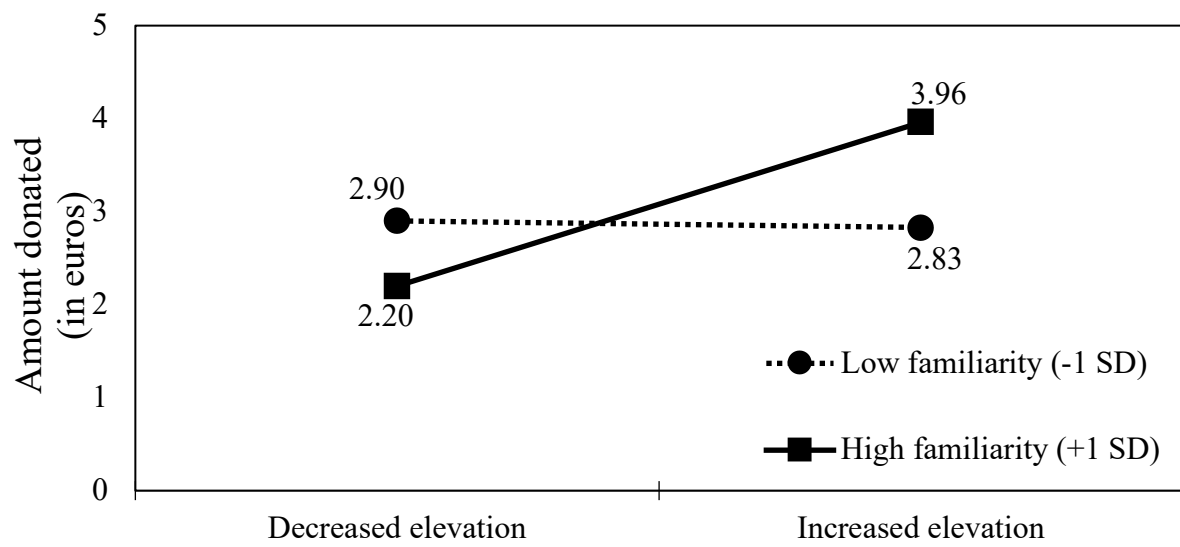
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<b>Hypotheses</b>	<b>Study 1</b>	<b>Study 2</b>	<b>Study 3</b>
<b>H1: The virtues underpinning fair-trade consumption will be associated with high verticality.</b>	Supported	–	–
<b>H2: Fair-trade products will be metaphorically connected to high verticality.</b>	–	Supported	Supported
<b>H3: A metaphorical match between fair-trade products and high verticality will increase altruistic behavior.</b>	–	–	Supported
<b>H4: Familiarity with fair-trade products will increase accessibility to the metaphorical connection with high verticality.</b>	–	Supported	Supported
<b>H5: Familiarity with fair-trade products will moderate the effects of the metaphorical match on altruistic behavior.</b>	–	–	Supported

**Table 1.** Summary table of the hypotheses tested in this research.



**Figure 1.** Left panel: Examples of stimuli and responses from Study 2. Right panel: Proportion of participants (61%) who placed the fair-trade coffee in the top box (up) as depicted in the left panel.



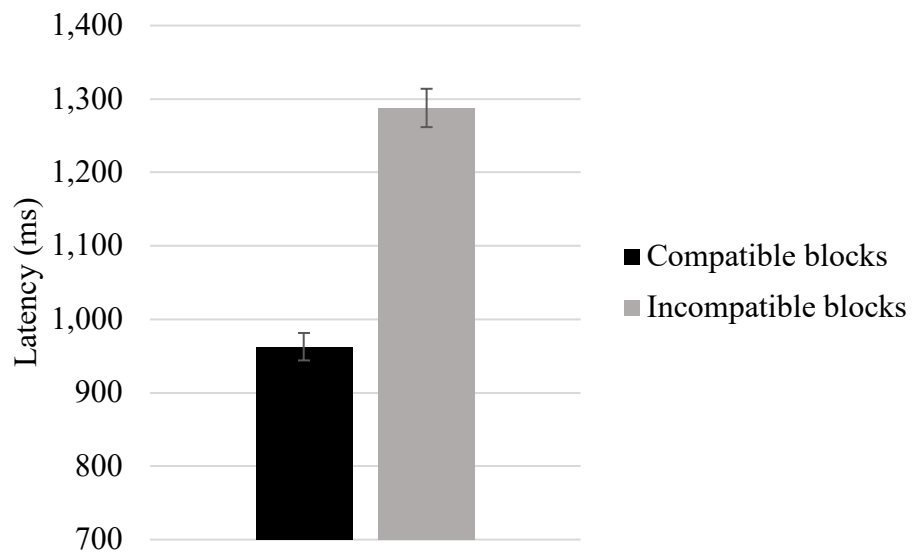
**Figure 2.** Under high familiarity with fair-trade products, donations were significantly higher in the increased elevation condition than in the decreased elevation condition in Study 3.

## Supplementary Materials

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**Figure A.1: Mean Response Latencies (in Milliseconds) in Compatible (Virtue = Up / Vice = Down) and Incompatible (Virtue = Down / Vice = Up) Blocks of the IAT in Study 1**



*Note:* Error bars represent standard error of the means (SEM).





**Figure A.2: Screenshot of Instructions and Stimuli Shown in Study 2**

The coffee (fair-trade or conventional) mentioned or pictured first was counterbalanced across participants to avoid ordering effects).


**The cartoon character depicted below is a coffee lover who buys fair trade and conventional coffee when shopping.**

**Your task is to drag and drop in the top box the picture of the coffee bag that you think this person would prefer, and in the other box the picture of the other coffee bag.**

Items



Box A



Box B

## Study A.1: Conceptual Replication of Study 2

As in Study 2, Study A.1 examined whether participants associate a fair-trade product (coffee) with an elevated position (Hypothesis 2) and whether this effect increased with familiarity (Hypothesis 4).

### A.1.1. Method

*Participants.* Ninety-nine participants from the United States completed the study in exchange for monetary compensation and were recruited online through mTurk. As per Study 2a, at the end of the study, participants completed a voluntary withdrawal question asking whether they answered with care and diligence, explicitly stating that there would be no penalty for answering ‘no’. Two participants were excluded from the study for answering ‘no’, leaving 97 participants (Female = 50; Other = 2;  $M_{\text{age}} = 40.32$  [min: 20; max: 73];  $SD = 10.98$ ).

*Procedure.* Instructions and procedure were similar to Study 2a but without any reference to the character’s “preference”. Participants thus read the following instructions: “The cartoon character depicted below is a coffee lover who buys both conventional and fair-trade coffee when shopping. Your task is to drag and drop the picture of the conventional coffee bag into the box that, in your opinion, best represents conventional coffee, and the picture of the fair-trade coffee into the other box.” As in Study 2a, which coffee (fair-trade or conventional) was mentioned or pictured first was counterbalanced across participants to avoid ordering effects. After completing this vertical task, participants were asked to evaluate their familiarity with each kind of coffee on the two different 7-point scales reported in Study 2a.

### A.1.2. Results

As expected, the fair-trade product was significantly associated with an elevated position by the majority of participants (62 out of 97), in 63.94% of the cases (sign test,  $p = .008$ ), which supports Hypothesis 2.

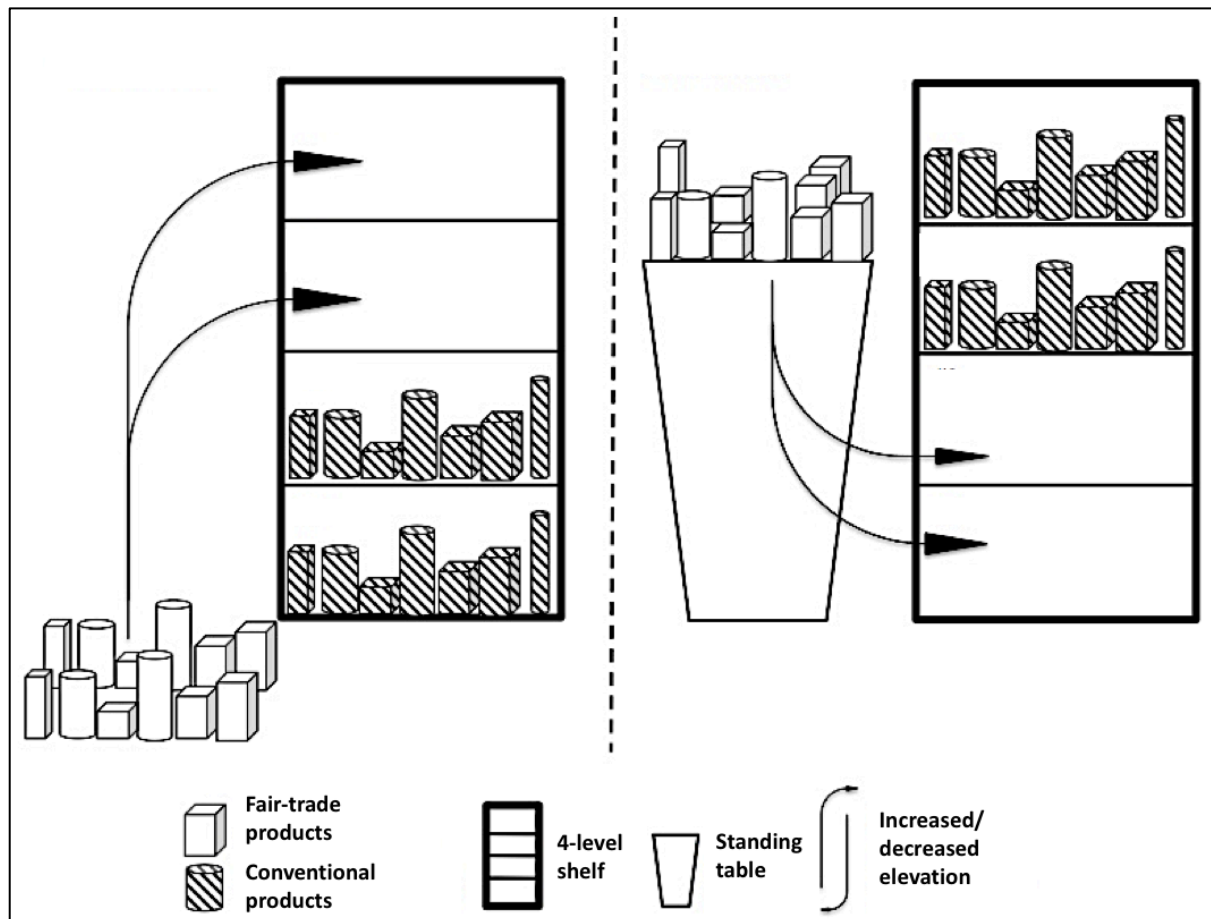
As expected, additional analyses also revealed a significant association between familiarity with fair-trade coffee and an elevated position of fair-trade coffee. More specifically, results indicated that greater familiarity with conventional coffee did not predict the association of conventional coffee with a higher position ( $\chi^2(1) = .679$ ,  $p = .410$ ;  $\beta = .107$ ,  $SE = .129$ , Wald  $Z = .678$ ,  $p = .410$ ; odds ratio = 1.113); whereas greater familiarity with fair-trade coffee significantly predicted the association of fair-trade coffee with a higher position ( $\chi^2(1) = 7.835$ ,  $p = .005$ ;  $\beta = .372$ ,  $SE = .141$ , Wald  $Z = 6.986$ ,  $p = .008$ ; odds ratio = 1.451). The odds ratio (1.451) indicated that a 1-point increase in the familiarity with fair-trade coffee was associated with a 45.10% increase in the probability of associating the fair-trade coffee with the elevated position, which supports Hypothesis 4.

### A.1.3. Discussion

In light of these results, Study A.1 confirmed findings from Study 2, supporting Hypotheses 2 and 4, and ruled out the potential confounding effect of a reference to the character’s preference.

**Figure A.3: Experimental Setting in Study 3**

In the increased elevation condition (left panel), participants were presented with the fair-trade products initially placed on the floor while conventional products were already stored on the two lower levels, and were asked to store them up high. In the decreased elevation condition (right panel), participants were presented with the fair-trade products initially placed on the standing table while conventional products were already stored on the two top levels, and were asked to store them low down.



**Table A.1: The Fair-Trade Products and Their Conventional Counterparts Used in Study 3**

<b>Fair-trade products</b>	<b>Conventional products</b>
Biscuits au cacao et aux noix de cajou équitables – 300g – Artisans du Monde	Mini-moelleux aux éclats d'amandes et de noix de pécan – 210g – Sélection Carrefour
Boulgour précuit équitable – 500g – Artisans du Monde	Boulgour tradition– 500g – Tipiak
Crackers équitables au sésame – 250g – Irudi	Crackers Tuc – 150g – Lu
Couscous équitable – 500g – Oxfam	Couscous fin – 500g – Tipiak
Huile d'olive vierge au piment équitable – 25cl – Artisans du Monde	Huile d'olive vierge extra – 25cl – Carapelli
Pain d'épices au miel équitable – 300g – Maya Fair Trade	Pain d'épices au miel – 350g – Brossard
Houmous équitable – 140g – Artisans du Monde	Houmous – 180g – Kooz
Confiture équitable banane/fruit de la passion – 275g – Artisans du Monde	Confiture mandarine/passion fruits cuits au chaudron – 305g – Monoprix Gourmet
Pâte à tartiner choconut équitable – 400g – Oxfam	Pâte à tartiner aux noisettes Nutella – 400g – Ferrero
Mélange de fruits secs équitable – 100g - Artisans du Monde	Apéritifs, l'exotique, fruits secs – 120g – Vico
Chips Banane équitables – 100g - Artisans du Monde	Chips de bananes à croquer Croquandises – 200g – Sun
Pesto verde équitable au basilic et à la noix de cajou – 130g – MercatoAltr	Pesto vert alla genovese – 190g – Barilla
Speculoos équitables – 225g – Maya Fair Trade	The Original Speculoos – 350g – Lotus
Pois chiches équitables – 500g – Artisans du Monde	Pois chiches secs et trempés – 400g – Sultanines
Tablette de chocolat au lait équitable de Saint-Domingue– 100g – Monoprix Gourmet	Tablette de chocolat au lait du pays alpin – 100g – Milka
Douceur au chocolat et au raisin équitable – 100g – Artisans du Monde	Billes de chocolat noir au cœur moelleux à la myrtille & açai – 150g – Lindt
Boite café équitable moulu pur arabica des petits producteurs – 250g – Malongo	Boite café moulu pur arabica 100% premium– 250g – Lavazza club
Boite café équitable moulu pur arabica sélection des hauts plateaux – 250g – Lobodis	Boite café expresso pur arabica 100% – 250g – Illy
Jus d'orange équitable du Brésil – 1L – Ethiquable	Jus d'orange pulvé – 1L – Plein Fruit
Dosettes souples expresso équitable – 78g (12 dosettes) – Malongo	Dosettes souples café classique– 125g (18 dosettes) – Senseo
Poudre de cacao maigre équitable d'Amérique Latine – 250g – Monoprix Gourmet	Poudre 100% pur cacao -250g – VanHouten

Riz basmati long grain équitable d'Inde – 500g – Monoprix Gourmet	Riz basmati des Mahârâjas – 500g – Taureau Ailé
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*Note.* Products' images can be obtained by contacting the authors.