

The influence of incidental haptic sensations in evaluating consumer brands

ABSTRACT

Embodied cognition provides the epistemological means from which new insights into haptic sensations can be explored within the field of consumer psychology. Extant research has shown that incidental haptic sensations can, nonconsciously, influence the judgement of objects that are non-diagnostic (unrelated) for the actual qualities of the item being judged; this would include the perception customers have of products. The application of this conception to the use of self-report questionnaires in consumer research lead to the hypothesis that the haptic experience of a self-report questionnaire (weight and firmness of the paper) could, nonconsciously, trigger physically grounded mental frameworks. In turn, this could lead consumers to form stronger product judgments when encountering an incidental, tactile experience of strength (firmness) in a self-report questionnaire. In two experiments ($N = 178$ and $N = 128$) evidence was found to support this hypothesis. Implications of the findings and future research directions are discussed.

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INTRODUCTION

A largely unexplored area within the field of consumer research is the influence of haptic experiences on participant judgement formation and subsequent ratings on self-report questionnaires. In the field of consumer research, much has been written on the links between tactile experience and cognition, most of which pertains to how sense of touch influences consumer product judgement (Morales, 2010; Peck, 2010; Schiffman & Knanuk, 2011). However, recent research has shown that haptic sensations can exert a more pervasive impact on evaluative processing (Peck & Childers, 2003). Specifically, recent empirical research investigating the effect of tactile experience on judgement, recorded by means of self-report questionnaires, has shown that haptic experience can nonconsciously¹ influence consumer judgment of objects that are non-diagnostic² for the actual qualities of the item being judged—including customer product perceptions (Peck, 2010; Peck & Wiggins, 2006).

The basic premise underlying the aforementioned studies suggests that language and higher order cognitions are grounded in the physical context (Glenberg & Kaschak, 2002). This is consistent with the emerging field of embodied cognition, which posits that our cognitive structures and mechanisms are grounded in patterns of bodily experience and activity (Gibbs, 2006). Embodied cognition, thus, provides the epistemological means from which new insights into haptic sensations (or sense of touch) can be explored in the field of consumer behaviour. Particularly, in social, marketing and consumer research, self-report questionnaires in hard copy are widely used to gather data on consumer thoughts and feelings (Weaver & Schwartz, 2008). However, these questionnaires in themselves provide haptic cues (weight and firmness of the paper), which may cue touch-related conceptual processing. This, in turn, may nonconsciously influence consumers' judgement of the strength of the product or brand under consideration. Following in the footsteps of critically recognised researchers such as Ackerman, Nocera and Bargh (2010), the two experiments presented in this article sought to determine if a physically grounded mental framework, consistent with embodied cognition, could nonconsciously lead participants to form stronger product judgments when encountering an incidental tactile experience of strength when completing a self-report questionnaire.

¹ In contrast to the description of nonconscious encounters by Ackerman et al. (2010), Lakoff and Johnson (1999) make reference to the unconscious, which refers to the part of the mind that is inaccessible to the conscious brain but that affects behaviour and emotions. The term nonconscious conceptually allows room for seeing cues that we are not aware of as inaccessible, but present in the conscious mind. On the other hand, the term unconscious suggests that if people are unaware of a cue, it is not present in the consciousness at all, and they are conceptually encouraged to divorce the cue from the cognitive process.

² Diagnostic touch is when touching provides objective information relevant to product judgement, such as touching a sweater to assess its thickness or texture (Peck & Childers, 2003). Thus, non-diagnostic touch refers to when touching provides information that influences judgment of items that are not related to the tactile experience.

1. EMBODIED COGNITION

The late 1990s and early 2000s saw a revival and coalescence of previously disparate thinking around the role of the body in cognition (Mirolli & Paisi, 2009; Wilson, 2002), that culminated in the programme now known as embodied cognition (Shapiro, 2011). As research in the field has expanded, so too has the realisation that there is still such a broad range of views on embodied cognition that there is no single, clearly defined theory. Consequently, there is a wide range of approaches and perspectives offered by authors that provide different meta-analyses on various domains in the field of embodied cognition, including (a) Wilson's six claims of embodied cognition (2002); (b) Shapiro's three themes of conceptualisation, replacement, and constitution (2011) and, on the more extreme end of the embodiment continuum, (c) Wilson and Golonka's radical embodied cognition hypothesis (2013). According to Wilson and Golonka (2013), the brain is not the sole resource we have available to solve problems. Rather, our bodies (and their perceptually guided motions through the world) do much of the work required, which replaces the need for complex internal mental representations.

According to more straight-forward claims in the field of embodied cognition, the mind needs to be understood in the context of its relationship to the body (Barsalou, 2008) or, put more simply, that "states of the body modify states of the mind" (Wilson & Golonka, 2013:58). Theories of embodied cognition thus claim that cognitive activity is fundamentally grounded in a physical context. Consequently, cognition is both supported and constrained by the architecture of our bodies and brains (Van den Bergh, Schmitt & Warlop, 2011). Thus, in summary, embodied cognition holds that cognitive processes are deeply rooted in the body's interactions with the world and, therefore, that the mind must be understood in the context of its relationship to a physical body that interacts with the world (Wilson, 2002).

Despite the aforementioned, people are mostly unaware of the embodied nature of their thought processes (Clark, 2008). Accordingly, they typically fail to recognise the aspects of their bodies and the environment that shape their understanding of, and reasoning regarding, particular topics or objects. However, the embodied cognition perspective has allowed room for the role of the nonconscious in thought. Thus, when cognition is viewed from the embodied perspective, it becomes possible to conceive of cognitive activity as occurring on a nonconscious level, from interactions between the brain, body, and environment.

1.1 Haptic Experiences and Consumer Psychology

The term haptic was defined by Revez (1950) as a sensory modality encompassing the experience of both touch and kinesthesia (feeling of movement). In its broadest sense, haptic relates to the study of touch (Prytherch & McLundie, 2002). In recent years, research concerning the impact of bodily feedback on judgement and behaviour has emerged (Wyer, 2008), indicating that the body is capable of influencing consumer behaviour (Lee, Rotman & Perkins, 2014; Ostinelli, Luna & Torsten, 2014; Van den Bergh et al., 2011). Indeed, several studies have demonstrated that the body critically modulates decision-making (Ackerman et

al., 2010; Carney, Cuddy & Yap, 2010; Huang, Zhang, Hui & Wyer, 2014; Hung & Labroo, 2011; Niedenthal, 2007).

Specifically, within consumer research, there is general consensus that touch (haptics) influences consumer product judgment (Bargh, 2002). More recent research points to the fact that touch is not merely a direct means of acquiring product information (instrumental touch) or pleasure (hedonic touch), but that tactile experiences may be central to the cognitive framework used by consumers to judge products and make decisions on them (Krishna & Morrin, 2008). This recent empirical research into haptic experience has indicated that, unbeknownst to the individual (nonconsciously), tactile cues can influence judgement of objects that are non-diagnostic for the actual qualities of the item being judged (Ackerman et al., 2010; Krishna & Morrin, 2008). From these studies it is clear that haptically acquired information can exert a rather broad influence over cognition, in ways which individuals are often unaware of (Ackerman et al., 2010). Ackerman et al. (2010) referred to such nonconscious encounters with non-diagnostic stimuli as incidental haptic experiences.

In consumer research, incidental haptic experiences have implications for the use of self-report questionnaires in gathering data on participants' thoughts and feelings. Self-report questionnaires might, in themselves, be providing tactile cues to participants, which may influence their subsequent judgement and decision-making. However, very little research has looked at the impact of the tactile experience of these self-report questionnaires on the judgement of consumers. In addition to this, researchers have left the influence of non-diagnostic cues in the domain of incidental touch largely unexplored (Ackerman et al., 2010; Krishna & Morrin, 2008).

1.2 Scaffolding and Metaphors in Relation to Embodied Cognition

Existing research suggests that higher mental processes are based on experience of the physical world and develop through scaffolding processes (Ackerman et al., 2010). Scaffolding refers to the process through which people integrate incoming information with their existing knowledge structures (Williams, Huang & Bargh, 2009). In other words, early concrete sensory experiences act as a foundation for later learning and development of more abstract concepts (Williams et al., 2009), which can then be applied to new experiences (Ackerman et al., 2010). Individuals often use the structure inherent in fundamental aspects of their physical worlds to develop higher-level concepts (Tooby & Cosmides, 1992); this is consistent with the embodied cognition perspective, which argues that mental action is grounded in a physical substrate (Niedenthal et al., 2005). Thus, without involving a person's explicit intent or awareness, the mind uses perceptual, body-based information as scaffolding for the development of abstract concepts (Williams et al., 2009).

Scaffolding processes can be seen to effect human cognition (Williams et al., 2009) and can be evidenced in language, specifically through the use of metaphors. This is in line with claims that normal conceptual systems are metaphorically structured; that is, most

concepts are partially understood in terms of other concepts (Lakoff & Johnson, 1999). A common example is the use of weight as a metaphor for the importance of abstract issues (Vankeerberghen, 2006). This suggests that the association between weight and importance has developed from a concrete link to a conceptual relationship on an abstract level (Lakoff & Johnson, 1999; Jostmann, Lakens & Schubert, 2009). As a result of this, feeling a heavy object sensitises a person to weight, and may also elicit concepts relevant to metaphorical weight, such as importance. From this perspective it becomes possible to conceive that the tactile experience of questionnaire paper (i.e. weight/firmness) could trigger physically grounded mental scaffolds that would invoke strength metaphors, which participants could apply, nonconsciously, to their judgement of a consumer brand under review.

2. INCIDENTAL HAPTIC SENSATIONS AND CONSUMER JUDGMENT FORMATION

The embodied cognition programme has matured to the degree that it crosses borders as other disciplines access a comprehensive and increasingly more coherent field of knowledge. Experiments conducted in the field of embodied cognition have provided insights into useful alternative stances from which to investigate the relationship between haptics and perception, specifically on the nonconscious level. The influence of incidental haptic experiences, encountered when completing self-report questionnaires, is not generally taken into account in questionnaire design, administration and interpretation in consumer research. More often, aspects such as question wording, positioning, and font are taken into consideration and accordingly standardised (Beukes, Crous & Schepers, 2011). With the pervasive use of self-report questionnaires in consumer research (Schiffman & Knanuk, 2011) this brings into question whether tactile cues such as texture, weight, and associated paper rigidity, which are encountered when completing a questionnaire, could influence formal rater scoring of a consumer brand or product.

Based on the background and the proposed problem statement, the following research question was formulated: Do incidental haptic sensations, encountered when consumers handle self-report questionnaires, nonconsciously have an impact on formal raters' scorings of a consumer brand? In order to address the research question stated above, two experiments were carried out. It was hypothesised that participants who encountered a tactile experience of firmness in the self-report questionnaire, would rate a consumer brand more strongly than those who encountered a tactile experience of flimsiness.

3. OVERVIEW OF RESEARCH METHOD

In the two experiments reported on here, the influence of incidental haptic experiences in the consumer research context, was explored by investigating differences in self-reported judgements of the strength of a consumer brand under different haptic conditions. The empirical objective of the research was to investigate the hypothesis that the means of the groups (exposed to two different conditions) would differ.

4. EXPERIMENT 1

4.1 Method

4.1.1 Participants

Participants were 178 first year students enrolled for a course in Consumer Psychology at a metropolitan university in Johannesburg. The mean age of the participants was 19.81 years (Median = 19 years, SD = 1.92). There were 122 women (68.5%).

4.1.2 Instrumentation and brand design

A self-report questionnaire recorded participants' judgment of a popular sportswear brand. Section 1 pertained to biographical information. Section 2 provided example items. Section 3 gave a brief explanation of the study undertaken. Finally, Section 4, the Consumer Brand Judgment Scale, consisted of 28 items. Each item consisted of a bipolar pair of adjectives that tied in with the metaphor of firm paper as being *strong*, and flimsy paper as being *weak*. Examples of the bipolar adjective pairs include *weak* and *strong*, *fragile* and *tough*, and *soft* and *solid*. Participants rated their judgment of the sportswear brand on a 5-point scale (ranging from 1 (weak) to 5 (strong)), according to the adjectives provided. An example of the type of bipolar adjectives used is shown below:

Weak 1 2 3 4 5 Strong

Preliminary psychometric analyses revealed that the scale measured a strong general factor of consumer judgment. One item had to be deleted. Total scores on the consumer judgement scale ranged from 27 to 135. The reliability of the scores were .90 and .91 on the pre-test and the post-test, respectively.

4.1.3 Research design

The research comprised a one-way experimental group design (Gravetter & Forzano, 2009). Participants were asked to complete a measure of judgement of a popular sportswear brand. The participants were randomly assigned to one of two experimental groups. The first experimental group completed their ratings on firm paper (300gsm), whereas the second group completed their ratings on flimsy paper (46gsm). The brand logo was displayed on each corner of the consumer judgement questionnaires.

4.2 Results

4.2.1 Attitudes and behaviour with respect to the brand

Participants of both groups, in equal measure, displayed different attitudes and behaviour towards the popular sportswear brand, as evident from similar percentages in the different attitude and behaviour categories (Liking the sportswear brand and desiring to purchase the sportswear brand in the future) (see Table 1). However, slightly more

participants in Group 1 (36.5%) owned products of the popular sportswear brand than in Group 2 (32.0%). Overall, it was concluded that participants were generally aware of the sportswear brand and were favourably inclined toward it.

Table 1: Participant attitudes and behaviour towards the Consumer Sportswear Brand

			Strong (Group 1)	Weak (Group 2)	Total
Would buy brand in the future	Yes	Count	78	80	158
		% total	43.8%	45.0%	88.8%
	No	Count	10	10	20
		% total	5.6%	5.6%	11.2%
Currently owns brand	Yes	Count	65	57	122
		% total	36.5%	32.0%	68.5%
	No	Count	23	33	56
		% total	12.9%	18.6%	31.5%
Liking for the brand	Yes	Count	62	63	125
		% total	34.8%	35.4%	70.2%
	Neutral	Count	26	26	52
		% total	14.6%	14.6%	29.2%
	No	Count	0	1	1
		% total	0%	0.6%	0.6%

4.2.2 Descriptive statistics for the judgement scale

Table 2 summarises the descriptive statistics of the two experimental groups. The mean scores (with SD in parentheses) were 50.47 (11.26) for the entire data set, 49.94 (11.62) for Group 1 (*Firm*), and 50.98 (10.94) for Group 2 (*Flimsy*). A difference in kurtosis between Group 1 (kurtosis = 0.53) and Group 2 (kurtosis = 0.03) was evident.

Table 2: Sample size, Mean, Standard Deviation, Skew and Kurtosis Across Groups

	Sample (<i>n</i>)	Mean (<i>M</i>)	Std. Deviation (<i>SD</i>)	Skew	Kurtosis
Entire sample	178	50.47	11.26	-2.01	-0.34
Group 1 (<i>Firm</i>)	88	49.94	11.49	0.58	0.53
Group 2 (<i>Flimsy</i>)	90	50.53	10.94	0.38	0.03

4.2.3 Group comparisons

Observation of the boxplots of the two experimental groups indicated that Group 1 had a higher minimum score value (Group 1 = 30, Group 2 = 27) and maximum score value (Group 1 = 89, Group 2 = 79) compared to Group 2. An independent groups t-test revealed no significant differences between group means ($t = -0.61$, $p = 0.54$), which was confirmed by a robust t-test of 20% trimmed means ($p = 0.64$). Effect size, calculated using Cohen's d ($d = 0.10$) indicated small difference in means (Cohen, 1988). These results indicated no effect on the mean score due to tactile experiences derived from handling the questionnaire.

4.3 Discussion

Overall, the null hypothesis of no mean difference across groups was retained rather than rejected. However, there was some evidence (on a descriptive level) that the haptic experience of paper strength (i.e. firmness) did have an impact on the distribution of judgement ratings. This was evident from the maximum scores (maximum scored higher for Group 1) and minimum scores (minimum scored higher for Group 1) across groups. A possible explanation for the unexpected lack of mean differences was attributed to the use of a well-established and recognised sportswear brand as part of the experiment. In seeking to understand the lack of mean differences across groups, it was identified that the brand presence of the popular sportswear brand was so large that it could potentially override differences due to tactile experience. The popular sportswear brand deliberately sets out to portray an image of strength, which is clear from past brand campaigns and also its current marketing strategy.

Consumer research has demonstrated that impressions can be formed almost instantaneously from the time of first encounter, in almost a form of imprinting (Ariely, 2009). In reviewing previous research it became evident that experiments such as those by Ackerman et al. (2010) and Jostmann et al. (2009) had been carried out using neutrally valenced items, often in first time encounters. However, the majority of participants in this experiment owned products of the popular sportswear brand. Similar research into incidental haptic experience has looked into dynamics occurring during the first interaction – that moment where imprinting occurs, as opposed to the dynamics associated with an established experience of a brand, beyond initial imprinting.

5. EXPERIMENT 2

Experiment 2 was primarily designed to replicate central aspects of Experiment 1. However, in order to address the limitations identified in Experiment 1, Experiment 2 was conducted to determine the influence of incidental haptic sensations on participants' judgement of a neutral or unestablished consumer brand, thereby removing the influence of a well-established and strong consumer brand presence on the judgements of strength by participants.

5.1 Method

5.1.1 Participants

Participants were 128 first year students enrolled for a course in Consumer Psychology at a metropolitan university in Johannesburg. The mean age of the participants was 19.90 years (Median = 19 years, SD = 1.77). There were 88 women (68.8%).

5.1.2 Instrumentation and brand design

Data were collected by means of administering the same self-report questionnaire as utilised in Experiment 1, with three exceptions: First, participants were required to fill in a short series of questions that were used to create a unique code that could tie their pre-test and post-test data together. Second, questions pertaining to participant attitudes and behaviour towards the brand were removed, as they were not applicable to an unestablished brand. Third, two additional items were added to the Consumer Judgement Scale.

The limitations of a brand with a strong brand presence were considered. In the light of this, the participants needed to be neutral to the brand. Thus, it was decided to design new brands for the purpose of this study. Similarly, a brand logo and a sportswear catalogue were assembled. Images introducing the neutral brands were shown to participants prior to their ratings on the self-report questionnaires. The images presented the fictitious sportswear brand logo and pictures of unbranded sportswear gear. Preliminary psychometric analyses revealed that the scale measured a strong general factor of consumer judgment. Four items had to be deleted. Total scores on the consumer judgment scale ranged from 26 to 130. The reliabilities of the scores were .91 and .95 on the pre-test and the post-test, respectively.

5.1.3 Research design

The study employed a randomised pre-test–post-test experimental group design (Gravetter & Forzano, 2009). All participants completed, in class, on standard 80gsm paper, a pre-test measure of judgment towards an unestablished consumer sportswear brand. The brand, including the brand logo and sportswear gear, was displayed on television screens within the venue. A week later, the same participants were requested to again rate a different (but also unestablished) consumer sportswear brand. Participants were randomly assigned to one of two experimental groups. The first experimental group completed their ratings on firm paper (300gsm), whereas the second group completed their ratings on flimsy paper (46gsm). Once again the brand was displayed on television screens within the venue.

5.2 Results

5.2.1 Descriptive statistics for the judgement scale

Table 3 summarises the descriptive statistics of the two experimental groups. The mean scores (with SD in parentheses) for the post-test were 98.87 (16.00) for Group 1 (*Firm*), and 93.65 (18.38) for Group 2 (*Flimsy*). A difference in kurtosis between Group 1 (kurtosis = 0.53) and Group 2 (kurtosis = 0.03) was evident.

Table 3: Sample size, Mean, Standard Deviation, Skew and Kurtosis Across Groups

	Sample (n)	Mean (M)	Std. Deviation (SD)	Skew	Kurtosis
Entire pre-test sample	128	101.17	13.39	-0.34	0.02
Entire post-test sample	128	96.28	17.29	-0.76	0.35
Group 1 ('Firm')	64	98.87	16.00	-0.94	0.73
Group 2 ('Flimsy')	64	93.65	18.38	-0.56	-0.03

5.2.2 Group comparisons

Conventional analysis of a two-group pre-test post-test experimental design is performed by means of an analysis of covariance (ANCOVA). However, our data did not meet the assumption of homogeneity of the regression slopes. Against this background, a robust ANCOVA was performed (Wilcox, 2007). Results indicated statistically significant differences in the post-test means, on the consumer judgement scale, across groups for persons who scored between 80 and 104 on the pre-test (see Table 4). However, no effect was found for scores of 109 and upwards on the pre-test, due to a lack of data in the upper end on the score range. Figure 1 shows that Group 1 (firm paper) scored higher on the post-test consumer judgement scale, except for a very small number of persons who scored very high on the pre-test. This suggests that the tactile experience of firmness, encountered through handling the questionnaire, influenced the strength of the judgement formed for the bulk of the participants, with persons in Group 1 (*Firm*) forming stronger judgements of the unestablished consumer brand than those in Group 2 (*Flimsy*). Consequently, the alternative hypothesis was partially supported.

Table 4: Robust ANCOVA Results

	X	n1	n2	DIF	z	se	ci.low	ci.hi	p
1	80	13	13	15.2	3.8	4.0	3.49	27.0	0.00178
2	94	32	32	11.0	3.8	2.8	3.27	18.6	0.00045
3	104	42	44	7.2	2.8	2.6	0.27	14.2	0.00786
4	109	38	34	4.0	1.3	3.1	-4.23	12.2	0.19932
5	120	21	21	-6.8	1.3	5.3	-22.12	8.6	0.21933

Note. X = pre-test score, DIF = difference of post-test scores of Group 1 and Group 2, ci.low = lower limit of 95% confidence interval, ci.hi = upper limit of 95% confidence interval

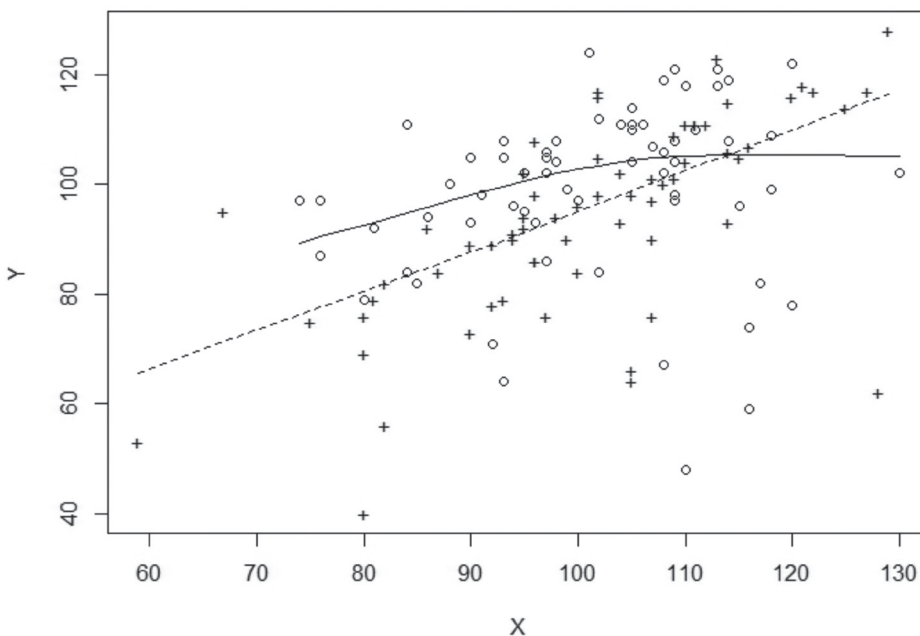


Fig. 1. Robust ANCOVA Plot Results for Group 1 ('Firm') (solid line) and Group 2 ('Flimsy') (broken line).

5.3 Discussion

Results of Experiment 2 indicated that the tactile experience of the self-report questionnaire had an impact on average judgments of strength communicated by a neutral consumer brand. Thus, a physically grounded mental framework, consistent with embodied cognition, had

nonconsciously led participants in Group 1 (*Firm*) to form stronger product judgments than those participants in Group 2 (*Flimsy*), when encountering an incidental, tactile experience of strength upon completing self-report questionnaires in the consumer context. Additionally, it appeared that the use of a neutral consumer brand removed the possible overriding effects of a high brand presence on subsequent consumer judgment formation.

6. SUMMARY AND CONCLUDING DISCUSSION

Prior research has examined the influence of incidental touch. However, little or no research has empirically investigated the influence of incidental haptic sensations in the use of self-report questionnaires in consumer research. Both Experiment 1 and Experiment 2 found evidence to support the hypothesis that a physically grounded mental framework, consistent with embodied cognition, could nonconsciously lead participants to form stronger product judgments when encountering an incidental haptic experience of strength in a self-report questionnaire, in a consumer context. Furthermore, Experiment 2 found that touch-related conceptual processing was more likely to be triggered by neutrally valenced brands, in first time encounters, as opposed to the dynamics associated with an established experience of a brand beyond initial imprinting. This result was further supported by the lack of mean differences found in Experiment 1, when a popular sportswear brand was the object of participant judgement.

Overall, this research complements previous studies (Ackerman et al., 2010; Jostmann et al., 2009; Schneider, Rutjiens, Jostmann & Lakens, 2011) providing experimental evidence of the influence of incidental haptic sensations and contributes to the literature by demonstrating that incidental exposure to haptic experiences in one domain can affect consumer judgement in another, substantively unrelated, domain. In particular, our results suggest that metaphorical activation of physically grounded mental frameworks is instrumental in the influence of incidental haptic sensations on consumer judgment. Additionally, evidence of increased activation of physically grounded mental frameworks when evaluating an unestablished brand enhances our understanding of the process underlying touch-related embodiment phenomena.

The findings of the research may serve to create awareness of the influence the tactile experience of self-report questionnaires has on participants' judgement. This could be used to inform the use and design of self-report questionnaires in market and consumer research, and the use of haptic experience in corporate and social marketing campaigns. While some initial evidence for the nonconscious influence of incidental tactile experiences has been provided, consideration can be extended to other tactile experiences encountered in a consumer survey context. For example, the instrument (the pen or pencil) used, bodily position (sitting or standing), the qualities of the items being used to support the questionnaire (a wobbly table or a weighty clipboard) and the possible impact of handling instruments, other than questionnaires, such as the use of a tablet, personal computer or smartphone to answer a survey (Brasel & Gips, 2014).

Alternatively, future research should consider how different brands may replicate or yield separate results – for example, would there be a different outcome when using the Apple brand, as

opposed to using an unknown brand? Finally, future endeavours into incidental haptic sensations can also delve into the possible influence of the need for touch (NFT) (Peck & Childers, 2003) or explore other possible explanations for the results through the embodied simulation account (which showed that the direction of activation from the touch experience to the abstract concept could be reversed) (Schneider et al., 2011), as opposed to the conceptual metaphor perspective.

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