Development and evaluation of measurement tools for conceptual profiling of unbranded products

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ABSTRACT

All objects including brands, products and packaging have conceptual (implicit) associations and consequently a conceptual profile. Along with its sensory profile this defines and characterises the object. Together these influence our attitudes, our affective reactions (feelings and pleasure) and our behaviour towards it. The conceptual content of a brand is usually clear and readily accessible via established brand personality measures. However, until recently, the conceptual content of product per se has received scant attention.

The conceptual content of an unbranded product derives from two sources: the fundamental nature of the product category ('category effect') and within-category sensory differences amongst related products ('sensory specific effect'). The latter leads to subtle variations in conceptual content that are important in the context of product optimisation but may be difficult to measure.

Best–worst scaling (BWS) is an indirect method of scaling that has been found to be particularly useful for measurement of 'soft' or abstract attributes that are not easily quantified. It has been applied previously to conceptual profiling of brands and products. This study compares the utility of BWS versus a direct rating method (an online technique known as bullseye) for accessing the conceptual content of six unbranded orange juices. Degree of familiarisation with the research process and the juices (intensive familiarisation versus a simple warm-up) was added as a second variable, thereby creating four methodological cells to compare.

Irrespective of familiarisation protocol, BWS proved to be more effective than bullseye in eliciting the 'sensory specific effect'. However the biggest effect was associated with the familiarisation protocol, where intensive familiarisation engendered more effective discrimination amongst the juices than the simple warm-up, irrespective of scaling methodology. We conclude that intensive familiarisation is of great benefit to the conceptual profiling of unbranded products for product development.

Within a product's conceptual profile, BWS and bullseye discriminated amongst the conceptual terms to a similar degree. Previous studies have tended to find that BWS gives greater discrimination amongst the choice items than rating scales. We suggest that the nature of the choice items and the number of decisions required from participants both affect the relative discrimination of the two methods.

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1. Introduction

1.1. Conceptualisation

All objects have conceptual content (Carey, 2009), often referred to as 'associated meaning'. Individuals come to assign meaning to particular objects through personal experience and through learning from others (family, teachers, advertisers, etc.). Recently, it has been proposed that some aspects of associated meaning may also be acquired innately (Carey, 2009). The fundamental elements of conceptual content are sometimes referred to as 'implicit associations' (Greenwald, Klinger, & Schuh, 1995), 'conceptual associations' or 'conceptualisations' (Thomson, 2010).

The apparent richness of the conceptual content of an object depends on its nature. Brands are abstract objects that are essentially bundles of conceptualisations (Thomson, 2010). With most successful brands, the architecture of the conceptual content will have been created and developed by design, or will have evolved optimally over time. Either way, a successful brand is usually rich in conceptual content. Consequently, the dominant conceptual elements of brands are usually fathomable and relatively straightforward to access and measure via established brand profiling techniques (Solomon, Marshall, Stuart, Barnes, & Mitchell, 2009).

In contrast to brands, and with the possible exception of fine fragrances, the conceptual content of a product (i.e. the product

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devoid of associated branding) often arises inadvertently. This may be attributed, perhaps, to the traditional focus of product developers on creating products that deliver optimal sensory pleasure (liking). There is, however, growing awareness of the capacity of the product per se, by virtue of its associated meaning, to engender emotional reaction or otherwise impact upon the mood of the individual (Cardello et al., 2012; Lindstrom, 2005). It follows that the conceptual content of a product should also be a matter of design. Since all three primary elements of consumer goods (branding, packaging and product) have conceptual content, it is desirable that these should be aligned so as to be mutually reinforcing (consonant) rather than contradictory (dissonant). Although the conceptual content of brands is routinely measured, the conceptual content of unbranded products has received scant attention. This might be due to lack of awareness or to practical difficulties in accessing this content.

The process of defining and quantifying the conceptual content of an object, and its practical application, was first described as 'conceptual profiling' by Thomson and co-workers (Thomson, 2010; Thomson, Crocker, & Marketo, 2010). By analogy with sensory profiling, the conceptual profile of an object may be defined as the degree of association of a series of conceptual descriptors with that object. Conceptual profiling has much in common with brand personality profiling (Aaker, 1997) in which brands are ascribed human-like personality traits. Personality traits can be considered conceptual associations, although in many instances the 'personality' terms extend well beyond what might be construed as personality traits to encompass various emotional, functional and abstract conceptualisations.

The effect that unbranded products have on consumers' feelings (specifically emotions) has been addressed through the development of the EsSense Profile® by King and Meiselman (2009), King, Meiselman, and Carr (2010), King, Meisleman, and Carr (2013) and Cardello et al. (2012). It is important to distinguish between the conceptual content of an object and the effect that the object may have on the feelings (moods and emotions; Thomson & Crocker, 2013) of an individual. Whilst it is not unreasonable to assume some sort of causative relationship between the former and the latter, although this is unlikely to be straightforward (Zajonc, 1980; Zajonc, 1984), conceptual content pertains to the object and not the individual whereas feelings pertain to the individual and not the object. This distinction calls for different methodological approaches. Methodologies associated with conceptual profiling (as opposed to emotional profiling) are the focus of this research.

1.2. 'Category effect' versus 'sensory specific effect'

In brand personality measurement, it is generally recognised that part of a brand's profile is associated with a 'category' or 'halo' effect, i.e. attributes that are common to most if not all brands in the category (Batra, Lenk, & Wedel, 2007; Batra, Lenk, & Wedel, 2010; Dillon, Maddern, Kirmani, & Mukherjee, 2001; Romaniuk & Sharp, 2000). Thomson et al. (2010) postulated the existence of a similar 'category effect' in the conceptual profiles of unbranded products. For example, part of the conceptual profile of an unbranded chocolate bar arises from the mere fact that the object is chocolate, with its various, attendant conceptual associations. Differences amongst conceptual profiles within the same product category arise primarily from their sensory differences. Thomson et al. (2010) demonstrated that differences amongst the conceptual profiles of dark chocolate bars could be related to specific sensory characteristics and referred to this as the 'sensory (or product) specific effect' to distinguish it from the 'category effect'.

Our observation from a number of commercial studies is that the 'category effect' is usually more dominant in unbranded products than in brands. This might be anticipated because sensory profiles within a product category are likely to have much in common. This has implications for measurement because conceptualisations associated with the 'category effect' may dominate and swamp conceptualisations engendered by the 'sensory specific effect', yet it is only the latter that may be optimised by product development.

There are two other considerations that further complicate the process of accessing the conceptual content of any object. Firstly, conceptual information retained in the memory but inaccessible to conscious thought processes can influence our attitudes and our actions (Ellis, 1995; Ellis & Newton, 2010; Greenwald & Banaji, 1995; Greenwald, McGhee, & Schwartz, 1998; Greenwald et al., 1995; Klinger & Greenwald, 1995). Consequently, such conceptualisations may not always be accessible through explicit self-report methods. Secondly, and of particular relevance to unbranded products, some aspects of conceptual content may be obscure and even counterintuitive to the individual. For example, chocolate is often thought of as a comfort food, yet it might be inappropriate to ask respondents to taste a particular chocolate and rate it on a scale for 'trustworthiness' or 'friendliness', even though these associations were found to form a key part of the conceptual content of chocolate per se and not just the branding (Thomson et al., 2010). The need for measurement systems capable of capturing an intuitive, non-rationalised response was recognised by Penn (2006) in the context of emotional communication of brands. Ideally, the measurement technique should foster the mental process described as 'system 1' thinking by Kahneman (2003).

Due to the potential difficulties in accessing conceptualisations associated with product, together with the dominance of the 'category effect', conceptual profiling of unbranded product calls for sensitive, quantitative research tools. Following on from Thomson et al. (2010), the present research describes the further exploration and development of methodological tools for conceptual profiling.

1.3. Measurement techniques

Most academic brand personality studies have measured conceptual associations on a semantic differential scale, generally followed by factor analysis (Anandkumar & George, 2011; Avis, 2012). Such scales are straightforward to administer and relatively easy for consumers to use but they have some well-known drawbacks, including lack of equality between the intervals (Jones & Thurstone, 1955; Moskowitz & Sidel, 1971), individual variation in scale use (Baumgartner & Steenkamp, 2001) and end-piling (Lee, Soutar, & Louviere, 2007; Lee, Soutar, & Louviere, 2008).

Thomson et al. (2010) were also concerned that the use of rating scales for conceptual profiling might encourage an over-rational approach to the task. In addition to the issues mentioned above, a further consequence might be to cause the respondent to focus exclusively on the literal meanings of the descriptive terms, ignoring metaphorical meanings that may convey greater depth. For these reasons, the authors considered that choice methods, in particular best–worst scaling (Finn & Louviere, 1992), may be better suited to eliciting conceptual associations than rating scales.

Best–worst scaling (BWS), also known as maximum difference scaling, is an indirect method of scaling that has been found to be particularly useful for measurement of 'soft' or abstract attributes that are not easily quantified (Flynn, Louviere, Peters, & Coast, 2007; Lee et al., 2008). Respondents are required to choose one item or attribute that they think is the best/largest/most in respect of some property x and one that is the worst/smallest/least of the same property from a series of sets that contain different combinations drawn from a larger master set of items. In the context of conceptual profiling, the items are conceptual descriptors (words) and the property x is the degree of association of a conceptual descriptor with the object. In a typical conceptual profiling study,