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Impacts of situational factors on process attribute uses for food purchases

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ABSTRACT

Consumer buying decisions for food reflect considerations about food production.

However, consumers' interest in process-related product characteristics does not always translate into buying intentions. The present study investigates how situational factors affect the use of process-related considerations when consumers select food products. A conjoint study provides estimated part worth utilities for product alternatives that differ on five product attributes (including four process-related factors) across two products (bread and sports drink) that differ on perceived naturalness. The investigation of the utilities of the process-related attributes features both an internal (priming of environmental values/value centrality) and an external (time pressure) situational factor. The results indicate that the importance of process-related attributes is product specific and also depends on situational factors.

1. Introduction

Consumer acceptance of new food products often depends on quality dimensions, such as taste, convenience, health, or processing (Grunert, 2005). These latter process-related quality characteristics reflect the production process, in which consumers might take an interest (e.g., organic production, genetic modification, environmental considerations). However, consumers' interest in process-related product characteristics does not always translate into buying intentions or actual behavior. With few exceptions (e.g., wine), food products constitute low involvement products where consumers might not possess the required knowledge structure in order to cognitively process multi-attributes and make reasoned decisions (Hamlin, 2010) yet buying decisions have to be made. In response to increased consumer attention, companies increasingly introduce products with specific process-related benefits, such as sustainability during the process. To clarify the impact of process-related product characteristics on buying intentions, situational factors might be salient, because attitudes likely influence behavior only if the surrounding situational factors make those attitudes accessible (Fazio & Williams, 1986). For some consumers for example, attitudes toward certain process characteristics might be both positive and weak, such that the impacts on intentions and behavior depend on situational factors.

Previous studies that assess the impact of process-related product characteristics on buying behavior mainly adopt experimental approaches (e.g., conjoint studies), which provide information about process characteristics together with other information. Participants then indicate their buying intentions or preferences. However, food purchasing nearly always takes place in specific contexts, whose situational factors shape and affect consumer responses to product information, ensuing evaluations, and the effects on buying intentions (Park, Iyer, & Smith, 1989). This study considers two key contextual factors: time pressure and priming stimuli. In everyday grocery shopping, consumers often lack the time needed to consider all product cues (Grunert, Bredahl, & Brunsø, 2004). When faced with such time pressures, consumers tend to (a) Accelerate information processing, (b) Filter information according to importance and devote more attention to negative information (Dhar & Nowlis, 1999), and (c) Engage in habitual buying behavior (Biel, Dahlstrand, & Grankvist, 2005). While many food choices exhibit habitual purchases, new food products disrupt habitual repeat purchases. Still, time pressure might diminish the role of process characteristics during the buying process of new food products by facilitating habitual buying decisions. The complex array of in-store stimuli, including

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products and advertising (Park et al., 1989), also increasingly feature information related to the environmental impacts of products and services (Luchs, Naylor, Irwin, & Raghunathan, 2010). Such exposures might prime consumers' values, such as universalism or environmental protection, and enhance attention to relevant process information as the consumer forms buying intentions. However, Verplanken and Holland (2002) demonstrated environmental priming effects only for participants who indicate environmental values as a central aspect of their selves which they coin value centrality. Moreover, the extent to which priming affects food purchases is likely to vary according to how much time consumers have to make their buying decision (Biel et al., 2005; Shen & Wyer, 2008). Thus, giving previous findings about how perceived time pressure and in store priming as well as their joint effect shape consumers' grocery shopping, this study investigates how the influence of process-related quality on purchase intentions varies with the level of time pressure and priming of environmental values.

2. Hypotheses development

2.1. Time pressure

Given the ever increasing amount of information (both marketing-related and otherwise) and product ranges available to consumers at any time (Suri & Monroe, 2003) as well as time constrained consumers (Reutskaja, Nagel, Camerer, & Rangel, 2011), consumers often make decisions either under perceived (Suri & Monroe, 2003) or actual time pressure (Grunert & Svenson, 2006), without sufficient time to process the full array of product cues deliberately. By limiting the "time available to consider information or make decisions" (Suri & Monroe, 2003, p. 92), time pressure affects consumer decision making (Howard & Sheth, 1969) and the amount of information consumers can process (Grunert, 2005). In particular, consumers accelerate their information processing under time pressure, by screening information according to perceived importance, such as whether the options perform best on the most important attribute (Edland & Svenson, 1993; Payne, Bettman, & Johnson, 1988) or lower perceived risk (Ben Zur & Breznitz, 1981). While some food buying decisions under time pressure can also be attributed to unreasoned and unconscious information processing (Adaval & Monroe, 2002; Grunert, 2006), consumers likely simplify choices by using heuristics (Hamlin, 2010; Scheibehenne, Miesler, & Todd, 2007) or revert to habits. Biel et al. (2005) investigate time pressure as a determinant of consumers' engagement in habitual guided behavior and show that these consumers are significantly more likely to reengage in prior behaviors. For example, consumers with a past tendency to buy eco-labeled products repurchase similar products under time pressure, whereas consumers who usually refrain from eco-labeled products adhere to this habit. Thus, despite new product's innovative offerings achieved through current food technology, people under time pressure may ignore new products (Grunert, 2006) or grant less weight to process-related features, prioritizing existing habits instead. Therefore,

H_1. Process-related attributes have less impact on the buying intentions of consumers under time pressure than on those under no time pressure.

2.2. Priming

A consumer's positive attitude to process-related characteristics such as an environmentally friendly mode of production should affect buying intentions if that attitude is accessible at the time the consumer forms those intentions. One way to make such attitudes more accessible in consumers' minds pertains to priming.

Priming refers to the activation of mental representations that frame successive information and other associated constructs in memory (Wheeler, DeMarree, & Petty, 2007). A typical priming procedure includes engaging participants in a series of ostensibly unrelated tasks, such that the first task aims to activate participants' mental representations by making concepts salient. The activated mental representations in turn may serve as interpretive frames for processing subsequent information (Bargh & Chartrand, 2000), which in turn influence subsequent tasks (e.g., buying behavior). The extent to which the primed mental representations affect buying intentions is expected to vary depending on how central the value to the consumer is. For example, Verplanken and Holland (2002) show that value centrality that is "the degree to which an individual has incorporated this value as part of the self" (p. 436) affects whether environmental priming leads to value-congruent behavior. In particular, people who cite environmental values as a central aspect of their selves are more likely to behave in ways congruent with environmental values after priming with their environmental values. Biel et al. (2005) find that priming environmental values results in more value-consistent behavior, such as purchases of eco-labeled choices. These studies employ non-food stimuli (Verplanken & Holland, 2002, television sets; Biel et al., 2005, laundry and dishwashing detergents). Process-related benefits in food decision contexts instead embody a paradoxical relationship (Scholderer & Frewer, 2003). Consumers demand products produced in environmentally conscious manners (Luchs et al., 2010), but consumers' attitudes toward the environment interact negatively with attitudes toward food technologies (Grunert, Bredahl, & Scholderer, 2003), including some sustainable food production methods (Verbeke, Perez-Cueto, de Barcellos, Krystallis, & Grunert, 2010). Moreover, providing information (e.g., emphasizing technology's environmental benefits) can provoke countervailing attitudes (Scholderer & Frewer, 2003) by activating preexisting negative attitudes toward food technologies. In contrast with studies in non-food contexts (Biel et al., 2005; Verplanken & Holland, 2002), priming environmental values thus may increase the importance of process-related attributes only among consumers for whom environmental values are not central. That is,

H_2. The impact of process-related attributes on buying intentions increases among consumers primed with values related to the environment and sustainability if environmental values are not central to these consumers.

The effect of priming also might relate to the effect of time pressure, though the interaction remains unclear. Shen and Wyer (2008) demonstrate that priming tends to have a greater impact on consumer behavior (for non-food products) under time pressure, by asking consumers to choose or reject products. Consumers in the "choose" condition identified more favorable product attributes, whereas consumers in the "reject" condition identified unfavorable attributes. Following the priming task, participants evaluated products by searching for information using the same assigned function from the priming task. Consumers in the "choose" ("reject") condition evaluated the product as more favorable (unfavorable). The magnitude of this priming effect increased when consumers made their decisions under time pressure (15 s). In contrast, Biel et al. (2005) investigate the interplay of priming an environmental value (poster depicting a cow in landscape) and time pressure on food product choices and conclude that such priming leads to value-congruent behavior only if consumers experience no time pressure. These findings suggest that, in the present study, the importance of process-related attributes