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Beyond information seeking: Consumers' online deliberation about the risks and benefits of red meat

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ABSTRACT

Successfully engaging consumers in a dialogue may provide opportunities for better tailored and more effective communication about food-related risks and benefits. Using an online deliberation concept and software, VIZZATA™, we explored the validity of a behavioral measure of deliberation in an online environment in the context of consumers' perceptions and information seeking about the risks and benefits of red meat. Participants from Belgium, Portugal and the United Kingdom (n = 150) were given the opportunity to engage in an asynchronous interaction with the research team about the information provided. Online deliberation was operationalized as an individual metric based on the number of questions asked in relation to the information, the number of comments left, the number of glossary terms accessed, and the time spent on deliberative activity. This operationalization provided a coherent measure of deliberation which was positively correlated with information recall about the risks and benefits of red meat. Participants who perceived the information about red meat risks and benefits as too complex engaged less with the information. The study herewith presents a novel method of investigating consumers' deliberation about food issues that conceptualizes consumer engagement as more than just information seeking.

Introduction

In the field of food risk and benefit communication, bridging the divide between scientific experts and the lay audience has traditionally been a difficult task (Gaskell et al., 2004; Hansen, Holm, Frewer, Robinson, & Sandoe, 2003). Communicators have the challenging task to assist consumers in making informed decisions (EFSA., 2012) and provide clear information about the balance between risks and benefits, which should build trust and therefore attenuate unwarranted risk perceptions (Qin & Brown, 2006; van Dijk, van Kleef, Owen, & Frewer, 2012). Over the last decade, communication about food-related risks and benefits has undergone a significant change as the interest has grown to involve the public in the communication and decision-making processes (Dijkstra & Gutteling, 2012; Macnaghten, Kearnes, & Wynne, 2005). The focus of this study is on consumers' deliberation or deliberative activity, which is defined as thoughtful, careful and lengthy considerations of information by individuals (Davies, 2009). Deliberation may differ from 'debate', 'discussion', or 'argumentation' in that its essence resides in the careful weighing of information and in making difficult choices and trade-offs among conflicting options (Matthews, 1994), although not all deliberative encounters require decisions (Burkhalter, Gastil, & Kelshaw, 2002). Involving citizens in deliberation initiatives has mostly been seen as a way to better inform public authorities and provide input for policy development. Consumers are influenced by deliberative activity as participation in the communication process can support also individuals to become better informed about an issue (Demont et al., 2013; Min, 2007; Ramsey & Wilson, 2009).

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The rapid growth of internet use and in particular the rise of web 2.0, has created new possibilities and new mechanisms for consumer engagement in food-related topics and deliberation, making the online environment a suitable context for the exploration of consumer views on risk and benefit issues. There are a few organisations using the internet or Twitter as a vehicle for consumer engagement in food safety or risk communication (e.g. the Food Standards Agency in the U.K. or the Food Safety Authority of Ireland). Much of this communication is still one-way, not personally tailored and fails to fully engage consumers in a deliberative process or in a proper dialogue, thus leaving a lot of potential that remains largely unexploited (Gaspar et al., 2014; Panagiotopoulos, Barnett, & Brooks, 2013; Thackeray, Neiger, Smith, & Van Wagenen, 2012). Besides advantages with respect to the ease and ability to reach out to wide audiences, the use of an online environment offers some new potential for deliberation as in theory it might allow researchers to better understand which aspects of the communication people pay most attention to and what their immediate reactions are. Major challenges, however, lie in measuring and monitoring such online deliberation processes, and assessing differences among individuals in their information seeking and deliberative activity (Anderson, Delborne, & Kleinman, 2012).

Furthermore, although risk communication has been extensively addressed over the last 30 years, much less attention has been paid to developing strategies for communicating balanced information and to understanding how consumers respond to more complex situations in which both risk and benefit information are available (Cope et al., 2010; Fischer & Frewer, 2009; Verbeke et al., 2008). Most food products have both positive and negative aspects which consumers often have to weigh up and trade off. As for the food products that have been characterized by a mixture of positive and negative effects on health, for example, fatty or oily fish, with the trade-off between omega-3 fatty acids and fat-soluble environmental contaminants, has received extensive attention (Foran et al., 2005; Levenson & Axelrad, 2006; Pieniak, Verbeke, Scholderer, Brunso, & Olsen, 2008; Verbeke, Sioen, Pieniak, Van Camp, & De Henauw, 2005). Yet less attention has been paid to red meat (the topic of this study) which is also worthy of attention (see e.g. Regan et al., 2014) as it has increasingly been associated with risks (e.g. the presence of hormone or antibiotic residues, as well as associations with the prevalence of cardiovascular disease and colorectal cancer) (McAfee et al., 2010; Smolinska & Paluszkiewicz, 2010) as well as benefits (e.g. as a source of high-value protein and essential minerals like iron, zinc and vitamin B12) (McAfee et al., 2010; Van Wezemael, Caputo, Nayga, Chryssochoidis, & Verbeke, 2014; Wyness et al., 2011). Moreover, red meat risks pertain not only to the arena of human health and nutrition, but also to the environmental impact of its production which has recently begun to be acknowledged (Aston, Smith, & Powles, 2012; de Boer, Schösler, & Boersema, 2013). In a similar vein, benefits associated with red meat extend beyond its nutritional value alone. These include also hedonic attributes providing sensory satisfaction (Banovic, Grunert, Barreira, & Fontes, 2009; Verbeke, Perez-Cueto, de Barcellos, Krystallis, & Grunert, 2010) and socio-cultural values relating to meat's status, its connection to eating habits, the structural aspects of meals, and consumers' frames of reference and cooking skills (Parry, 2009; Scholderer, Kügler, Veflen Olsen, & Verbeke, 2013; Schösler, de Boer, & Boersema, 2012).

Therefore, it is important to investigate how consumers weigh up the various positive and negative aspects of red meat, and how they engage in seeking clarification about these aspects as they try to make sense of the risk–benefit information received. Furthermore, given the ubiquitous use of the online environment for communicating risks and benefits to consumers, it is important to understand how consumers interact with information materials presented to them, and which aspects of such information most capture their attention. The objective of this study is to acquire a better understanding of the nature of consumer deliberation about the risks and benefits of food in an online environment, taking red meat as the specific case. Hereafter deliberation in an online environment will be referred to as "online deliberation".

With the aid of a new online deliberation concept and software, VIZZATA™, this study aimed to investigate consumer deliberation about the risks and benefits of red meat while at the same time testing the validity of a behavioral measure of online deliberation. We aimed to evaluate the role of personal relevance attached to red meat, information (in)sufficiency and perceived complexity of the information as potential antecedents of online deliberative activity related to information about red meat. We also explored online deliberation as varying by socio-demographic characteristics, including gender, age, education and the presence of children. While such characteristics have been shown to influence food risk and benefit perceptions (e.g. De Vocht et al., 2013; Bearth, Cousin, & Siegrist, 2014) as well as consumer involvement with meat (Verbeke & Vackier, 2004), associations with food-related information seeking are less straightforward. For example, Kuttschreuter et al. (2014) document age-related differences but no gender differences in information seeking about food-related risks. In a similar vein, Hansen, Boye, and Thomsen (2010) report that women do not necessarily seek more often product-specific health-related information compared to men. Also Verbeke and Ward (2006) report that gender, age, education and presence of children had little impact on consumers' interest in information cues on beef labels with a few notable exceptions such as females reporting higher importance and attention to specific quality indications, and consumers aged below 30 years reporting lower interest in general. We are not aware of any studies specifically investigating differences in deliberation based on socio-demographic factors, but insofar as information seeking is one facet of deliberation there are differences which makes it reasonable to explore deliberation as varying by socio-demographic characteristics.

Finally, our study is performed in multiple countries (Belgium, Portugal and the United Kingdom). Although deliberation can be considered a rather universal process that can be found across cultures, and while we are not aware of any literature that looked at the cross-cultural aspects of deliberation, the performance of this work in multiple countries facing the same issues of red meat is believed to add cross-cultural validity to our study's online method and subsequent findings.

Theoretical background

Online deliberation

Mechanisms for engaging the public can range from simple public opinion surveys or focus groups to more complex approaches that involve more participative and deliberative processes such as citizen juries or conferences. While deliberation has been seen predominantly as face-to-face (F2F) communication, the development of new communication technologies has opened new avenues of deliberative possibilities (Boczkowski & Mitchelstein, 2012; Min, 2007; Xenos, 2008), including so-called online or keyboard-to-keyboard (K2K) deliberation (Powell, Delborne, & Colin, 2011). The new generation of interactive online tools that allow users to generate content and interact are increasingly recognized as an opportunity to involve and empower consumers in the food risk and benefit communication process (Brossard & Scheufele, 2013; Rutsaert et al., 2013). Website interactivity can be evaluated on two levels: social and mechanical. Social interactivity consists of reciprocal communication through