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Understanding healthy eating behaviors at casual dining restaurants using the extended theory of planned behavior

Jinhyun Jun[a,*], Susan W. Arendt[b]

[a] School of Travel Industry Management, University of Hawaii at Manoa, 204 George Hall, Honolulu, HI 96822, United States
[b] Apparel, Events, and Hospitality Management Department, Iowa State University, 9E MacKay Hall, Ames, IA 50011, United States

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ABSTRACT

This study examined the effects of customers' psychological factors on their healthy eating behaviors (e.g., selecting low-calorie menu items) at restaurants within an extended version of the theory of planned behavior (TPB), which consists of attitudes, subjective norms, perceived behavioral control, and behavioral intentions. This extension was implemented by incorporating two new constructs (prototype and willingness) and subdividing the original TPB constructs of attitudes (affective and cognitive attitudes) and social norms (injunctive and descriptive norms). Data were collected using on-line surveys. Structural equation modeling revealed that healthful menu item selection was better predicted by the willingness-based reactive decision-making process than by the intention-based rational process. Results also indicated that affective attitude and injunctive norms had stronger and more consistent effects on behavioral intentions and willingness to choose healthful menu items than did cognitive attitude and descriptive norms. Prototype image had a positive effect on behavioral willingness. By extending the existing theory, this study makes contribution by remedying the shortcomings of the original theory and providing practical implications to encourage people to select healthy menu items.

1. Introduction

Given the increase in obesity rates along with the increased frequency of consuming food away from home (Bowman and Vinyard, 2004), the focus on restaurants efforts to promote healthier eating has received much attention (Glanz et al., 2007; Koplan and Brownell, 2010). Nutrition information is sometimes provided and/or required on restaurant menus to help people make healthy choices when they eat out (U.S. Food and Drug Administration, 2013); however, researchers have reported inconsistent effects of nutrition information on customers selecting healthful menu items at restaurants (Elbel et al., 2009; Harnack and French, 2008; Yamamoto et al., 2005). In contrast, other researchers have emphasized the role of psychological factors in food selection (Jun et al., 2014; Senauer, 2001).

The theory of planned behavior is one of the most popular theoretical frameworks for investigating how the psychological factors of attitude, subjective norms, perceived behavioral control, and behavior intention affect people's eating behaviors (e.g., Dunn et al., 2011; Kassem et al., 2003; Vermeir and Verbeke, 2008). However, the TPB has received criticism in two respects: its assumptions and conceptualization of some components. With respect to assumptions, the TPB has been criticized because of the focus on rational decision making although not all behavioral decisions are made based on a rational consideration of the behavior's advantage and disadvantage (Gibbons et al., 1998; Ohtomo and Hirose, 2007). In particular, food selections are not determined only through deliberative reasoning processes but instead, people sometimes choose whatever they want to eat without rational consideration. To investigate this type of reactive decision making process, prototype images and behavioral willingness have been most frequently used (Gibbons et al., 2009). Although behavioral willingness does prove to be a determinant of actual behavior, like behavioral intention in the TPB, behavioral willingness tends to be shaped by a reactive response to a social context. Prototype image refers to the perceptions a person has about the typical person who engages in a given behavior, and it is one of the determinants of behavioral willingness (Gibbons et al., 2009). For example, Spijkerman et al. (2004) reported that when people had positive perceptions of smokers, they were likely to be willing to smoke themselves; this relationship could be explained by the reactive decision-making approach. Some researchers have alleged that the TPB's components, in particular attitudes and subjective norms, are not adequately conceptualized (Rise et al., 2008; Tăut and Băban,

* Corresponding author. Tel.: +1 808 956 5381; fax: +1 808 956 5378.
E-mail addresses: jjun@hawaii.edu (J. Jun), sarendt@iastate.edu (S.W. Arendt).

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2012; Tuu et al., 2008). Critics have charged that the TPB focuses only on cognitive aspects of attitude (i.e., cognitive attitudes) and on social norms related to others' approval/disapproval regarding a certain behavior (i.e., injunctive norms) thereby suggesting that the concept of attitudes should be examined through both cognitive attitudes and affective attitudes (e.g., feelings/emotions) (e.g., Tăut and Băban, 2012), and the concept of subjective norms through both injunctive norms and descriptive norms (e.g., what most people do) (e.g., Tuu et al., 2008). Despite these criticisms, there are limited studies attempting to remedy such shortcomings of the TPB in the domain of healthy eating behavior. Moreover, to the best of our knowledge, there have been no studies done in restaurant settings that have used this theoretical argument.

To address these criticisms, this study investigated the applicability of an extended theory of planned behavior in the domain of customers' healthful menu item selection by deploying an on-line survey to restaurant consumers. This study had two objectives. The first was to investigate both rational and reactive (or unintentional) behavioral decision processes in selection of healthful menu items at restaurants by adding both prototype image and behavioral willingness to the TPB. The second objective was to test the extended TPB by subdividing the components of attitudes into affective and cognitive attitudes and the component of social norms into injunctive and descriptive norms. Therefore this study contributed to and extended the existing literature by examining the roles of these constructs in people's selection of healthful menu items at casual dining restaurants.

2. Review of literature

2.1. Healthful foods

Healthful food has been defined in various ways (Croll et al., 2001; Martínez-González et al., 2000; Martínez-González et al., 1998). Given that overconsumption of calorically dense foods is one contributor to obesity and obesity is a contributor to a variety of chronic diseases (Swinburn et al., 2004; Swinburn et al., 2009; U.S. Department of Agriculture and U.S. Department of Health and Human Services, 2010), healthful menu items in this study were defined as menu items that were low calorie. Others have also defined healthful foods as low calorie foods (Cranage et al., 2004; Glanz et al., 2007).

2.2. Behavioral intentions vs. behavioral willingness

Behavioral intention is one of the determinants of actual behavior in the TPB. If a person has a strong intention to engage in a behavior, he or she is more likely to perform the behavior. Although behavioral intention has been widely used in various behavior domains (Han et al., 2010; Stein et al., 2010) including healthy eating behaviors (e.g., consumption of fruits and vegetables) (Fila and Smith, 2006), scholars have pointed out that behavioral intention is particularly useful in predicting rational or premeditated behavior decisions. However, not all behaviors are a result of rational decision making (Gibbons et al., 1998; Pomery et al., 2009). To account for unintentional or reactive decisions, the concept of behavioral willingness has been introduced.

Behavioral willingness may seem similar to behavioral intention, in that both are the predictors of actual behavior, there is a clear distinction between these concepts, as is evident given the definitions of each. While behavioral intention refers to "how much of an effort [an individual is] planning to exert in order to perform the behavior" (Ajzen, 1991, p. 181), while behavioral willingness refers to "an individual's openness to opportunity, that is, his or her willingness to perform a certain behavior in situations that are conductive to that behavior" (Pomery et al., 2009). As indicated in these definitions, behavioral willingness involves less planning or premeditation than behavioral intention and also requires a certain situation be presented and then people are asked how willing they would be perform a behavior in the given situation.

The roles of both behavioral intention and behavioral willingness have been investigated in various behavior domains (Hukkelberg and Dykstra, 2009; Myklestad and Rise, 2007; Ohtomo and Hirose, 2007; Zimmermann and Sieverding, 2010), and some studies have found that behavioral willingness had a stronger effect on actual behavior than behavioral intention (Hammer and Vogel, 2013; Hukkelberg and Dykstra, 2009).

Despite this suggestive evidence, there is only one known healthy eating study using both concepts together (Ohtomo, 2013). One possible reason for this is that the concept of behavioral willingness comes from the prototype/willingness model, which has been used to predict health-risk behaviors (e.g., smoking), not health-promoting behaviors. To the best of the authors' knowledge, Ohtomo's study (Ohtomo, 2013) is the only one to have combined the two in investigating eating behaviors. That study found that behavioral willingness had a stronger impact on unhealthy snacking behaviors, emphasizing the importance of the unintentional or reactive decision-making process in food selections. Similarly, other studies have also indicated the importance of this decision-making process using the concept of impulsivity (Churchill et al., 2008; Churchill and Jessop, 2011). According to these studies, impulsive people tend to eat high-calorie snacks more frequently than less impulsive people do, which shows that unhealthy eating behavior is closely related to unplanned or reactive decision-making. Based on the discussion above, we expect that both behavioral intention and behavioral willingness to choose healthful menu items have positive effects on selecting those menu items at a restaurant.

2.3. Affective vs. cognitive attitudes

Attitudes have traditionally been conceptualized as having both cognitive and affective components (Crites et al., 1994; Norman, 1975; Tăut and Băban, 2012), and this conceptualization has been confirmed through methodological (e.g., Crites et al., 1994) and empirical research (e.g., Lawton et al., 2009). Affective attitude is defined as "[the] individual's general level of positive or negative feelings concerning the issue," whereas cognitive attitude is "[the] individual's beliefs about the instrumental utility of the action for the attainment or blocking of his or her goals weighted by value placed on such goals" (Norman, 1975). The magnitude of the effect of each type of attitude varies from one study to another (e.g., Dunn et al., 2011; Payne et al., 2004). For example, Dunn et al. (2011) investigated the effects of both attitudes on fast food consumption within the framework of the TPB and found that only cognitive attitudes had a significant effect on intention to consume fast food. However, other studies have shown that affective attitude has a stronger effect than cognitive attitude on behavioral intentions (Lawton et al., 2009; Tăut and Băban, 2012). Lawton et al. (2009) examined the effects of cognitive and affective attitudes on intentions to engage in 14 health-promoting (e.g., brushing teeth, exercise, low-fat diet consumption) or health-risk (e.g., binge drinking, illegal drugs, smoking) behaviors and on actual performance of such behaviors. While affective attitude significantly affected behavioral intention to engage in all 14 given behaviors as well as the actual performance of those behaviors, cognitive attitude had a significant effect on behavioral intentions for 11 out of the 14 behaviors and on actual performance for 7 out of 14. Related to healthy eating behaviors, Payne et al. (2004) found that affective attitude toward eating healthy was the most influential factor in forming intentions. Blanchard et al. (2009) also found a significantly positive effect of affective attitude on the intention to