The Influence of Evaluability in Nutrition Tables on Consumers’ Food Preferences

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Consumers appear to scarcely use nutrition tables and to have difficulties in understanding them. We hypothesize that this may be overcome when nutrition tables include summary information and nutrition information about a reference product. These assumptions were tested in a between-subjects experiment using six different nutrition tables for two products (yogurt and chocolate). Based on the self-reported results, we may conclude that a nutrition table with reference and summary information can change consumers’ perception of a food product, so that it is more in line with its actual nutritional value.

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Consumers seem to scarcely use nutrition tables printed on food products (Cowburn & Stockley, 2005). If they pay attention to these tables, they often seem to have difficulties in understanding the nutritional value of the products. Based on the evaluability principle, we suggest that people’s nutritional value understanding may be facilitated when they can compare products.

The evaluability principle posits that when people evaluate a product on an attribute that does not have clear boundaries or references (e.g. the amount of fat in a product), the presence of similar information about another product can affect this evaluation (Hsee, 1996). The information about the other product then functions as a reference class. Thus, a nutrition table that includes nutrition information about other, perhaps similar products should influence consumers’ perception of this product. Furthermore, consumers do not consider multiple attributes at the same time when choosing between food products but prefer to base their choice on one attribute of these products (Schneiderhenne, Miesler, & Todd, 2007). This implies that consumers may benefit from summary information in nutrition tables when evaluating the nutritional value of a product.

Based on the evaluability heuristic and previous studies, we hypothesize that nutrition tables with information about a reference product, that is, in addition, summarized, are easier to understand and are more likely to affect consumers’ evaluation of the products. So that the latter is more in agreement with the products’ nutritional value.

We tested this in a between-subjects experiment. Six different nutrition tables were developed, which varied on summary information and on evaluability. The summary information was the nutrition density index (NDI) of the food product, which is based on the product’s balance between the amount of nutrients and the amount of energy (cf. Drewnowski, 2005). This resulted in a value between 1 (low NDI) and 5 (high NDI). Evaluability was varied by presenting, along side the NDI score of the product at hand, either the average NDI score of the product category or the NDI score of a very healthy product, namely an orange. In sum, we tested six different nutrition tables, a standard nutrition table (control) and five tables that contained the standard table plus one of the following: the product’s NDI score (NDI score), the percentage daily value of each nutrient (%DV), a positive, negative or neutral smiley for each nutrient (smiley’s), a bar on which the product’s NDI score and the average NDI of the product category were presented (NDI plus product category), or a bar on which the product’s NDI score and the NDI score of an orange (NDI plus orange) were shown. These six tables were developed for two products: yogurt, which is a relatively healthy product, and chocolate, which is a relatively unhealthy product. Each respondent viewed one of these tables for one of the two products and was then asked to complete a questionnaire. This contained items about their liking of and intention to buy the product, its perceived healthiness, knowledge about the different nutrients, the evaluation of the nutrition table, which information in the nutrition table had drawn their attention, the importance of food for their health, and some demographics.

Overall, respondents perceived the yogurt as healthier than the chocolate. In addition, they rated the chocolate as more attractive and had greater intention to buy it than the yogurt. Respondents’ knowledge of the two products seemed sufficient; they correctly indicated that the yogurt contained more sodium than the chocolate and that the chocolate contained more energy, fat, saturated fat, carbohydrates, sugar, and fibers than the yogurt.

The type of nutrition table influenced respondents’ liking and intention to buy the chocolate. Respondents who had viewed the control table liked the chocolate more and had greater intention to buy it than the respondents who had seen the NDI score, %DV, smiley’s, or NDI plus product category. This effect was not found for the yogurt. The chocolate’s liking-buying score was higher in the control table condition than in the other nutrition table conditions, and higher compared to the yogurt’s liking-buying rating. This may indicate that the tables that included reference information, summary information, or both changed people’s perception of chocolate so that it became more in line with its nutritional value, which was actually relatively low.

A second study, in which we examined three nutrition tables for a healthy yogurt and an unhealthy yogurt, showed that the reference information changed people’s healthiness perception of the unhealthy yogurt. The results of our two studies may imply two things. First, nutrition tables that provide reference information only seem to change people’s perception of food products with low nutritional value, so that people like them less or consider them to be less healthy. Second, reference information only influences people’s primary