



Contents lists available at ScienceDirect

# Food Quality and Preference

journal homepage: [www.elsevier.com/locate/foodqual](http://www.elsevier.com/locate/foodqual)

## Pleasantness, emotions and perceptions induced by coffee beverage experience depend on the consumption motivation (hedonic or utilitarian)



David Labbe\*, Aurore Ferrage, Andréas Rytz, Jeremy Pace, Nathalie Martin

Nestlé Research Center, Route du Jorat 57, PO Box 44, CH-1000 Lausanne 26, Switzerland

### ARTICLE INFO

#### Article history:

Received 28 October 2014  
 Received in revised form 29 March 2015  
 Accepted 30 March 2015  
 Available online 3 April 2015

#### Keywords:

Hedonic and utilitarian motivations  
 Emotions  
 Sensory  
 Pleasantness  
 Experience  
 Consumer–product interaction

### ABSTRACT

Motivations to consume a given food or drink differ across consumers. For instance, coffee drinking can be motivated by sensory enjoyment (hedonic motivation) or by stimulation (functional motivation). Today it remains unknown how hedonic vs. utilitarian motivations impact consumer–product interaction. The objective of the present research was to study the impact of both motivations on consumer responses (i.e. pleasantness, emotions, and importance and satisfaction for each of the five senses) during the entire experience of a coffee beverage. Sixty participants drinking coffee beverage either for sensory enjoyment (SENS,  $n = 30$ ) or to be stimulated (STIM,  $n = 30$ ) were recruited. Four moments of the product experience were considered: water heating, jar handling, cup preparation and cup drinking. Self-ratings were repeatedly performed by the participants after each moment. SENS participants depicted higher positive emotions than STIM participants and even if similar levels of pleasantness were reached after cup drinking by both groups, levels of pleasantness at water heating and jar handling moments differed. The importance and satisfaction for the different senses also changed according to the participant motivation to drink the coffee beverage. Marketing implications are discussed in terms of communication materials development to more strongly engage consumers with the product.

© 2015 Elsevier Ltd. All rights reserved.

### 1. Introduction

A given food or beverage can be consumed according to different motivations by different people or on different occasions. In USA, soya consumers are segmented across the population according to health or taste motivations (Wansink & Westgren, 2003). Similarly, consumption of coffee is driven by different motivations such as the sensory enjoyment provided by coffee flavour and the psychophysical stimulation induced by caffeine (Hsu & Hung, 2005). Coffee is a source of satisfaction through smell and taste experience and of stimulation as an experienced consequence of coffee drinking (Desmet & Schifferstein, 2008). Coffee can be considered as an hedonic good when consumer satisfaction is related to the multisensory experience and as an utilitarian good when consumers expect a consequence after consumption, i.e. stimulation (Batra & Ahtola, 1990). Coffee drinking is also an emotional experience with elicited emotions varying according to the sensory properties of the coffees (Bhumiratana, Adhikari, & Chambers, 2014).

The impact of utilitarian vs. hedonic motivations on consumer behaviour is widely documented in marketing literature for instance on shopping attitudes (Childers, Carr, Peck, & Carson, 2001; Kim, 2006; O'Brien, 2010; Sarkar, 2011). However, considering food and beverage categories post-purchase (i.e. consumption), only one study showed that food consumers' choice is more hedonic (e.g. a chocolate bar) rather than utilitarian (e.g. an apple) driven (Cramer & Antonides, 2011). However, it remains unclear whether different hedonic vs. utilitarian motivations can impact pleasantness, sensory perception and emotions elicited by product interaction during the entire experience.

We compared pleasantness and emotional responses induced by the preparation and consumption of a cup of coffee beverage between two groups of participants, one consuming this product to be stimulated (utilitarian motivation), the other for sensory enjoyment (hedonic motivation). Since coffee experience is likely associated to both stimulation and sensory enjoyment through repeated coffee exposure in our daily life (for a review on associative learning, see Mitchell, De Houwer, and Lovibond (2009)), we used a motivation questionnaire to recruit regular caffeinated coffee consumers for whom consumption is specifically motivated either by being stimulated or by sensory enjoyment.

\* Corresponding author. Tel.: +41 21 785 8375; fax: +41 21 785 8554.  
 E-mail address: [david.labbe@rdls.nestle.com](mailto:david.labbe@rdls.nestle.com) (D. Labbe).

Following an existing approach (Schifferstein, 2006), we also measured the perceived importance that participants attribute to the five sensory modalities (vision, hearing, touch, taste, smell) in the context of their product experience as well as their satisfaction provided by the sensory stimulations generated by each sense.

We developed an approach to measure consumer response in a realistic environment (kitchen) not only after cup drinking but also at four other moments of the product experience (before starting the experience as baseline, after water heating, jar handling and cup preparation). Usually participant's response is collected at the end point of the experiment however sensory modalities play an important role during the experience and emotional responses can change according to the various moments of user–product interactions (Schifferstein, Fenko, Desmet, Labbe, & Martin, 2013).

Our overall objective was to measure the impact of different motivations for drinking coffee beverage on the dynamic of consumer response during the entire experience with the hypothesis that utilitarian vs. hedonic motivations impacts differently level of pleasantness, emotions and also sensory responses. Indeed participants consuming a cup of coffee beverage for sensory enjoyment could attribute more importance to coffee smell and/or taste than participants drinking a cup of coffee beverage to be stimulated.

We chose coffee beverage to fulfil our objective because it is associated to two main drinking motivations (sensory enjoyment and stimulation), and because of its impact on consumer emotions. In addition, as it is one of the most popular beverage worldwide insights about the impact of motivations on emotions and sensory perception related to coffee experience could have valuable marketing implications related to brand experience design (Brakus, Schmitt, & Zarantonello, 2009; Krishna, 2012; Lindstrom, 2005).

## 2. Material and methods

### 2.1. Product and participants

A commercial coffee beverage was selected for the study and 60 Swiss participants from Lausanne and the surroundings (30 men and 30 women, from 18 to 60 years old) highly representative of the consumer target of interest were recruited. Indeed, they all consumed every day and exclusively this specific product either for stimulation (utilitarian motivation) or for sensory enjoyment (hedonic motivation). Participants were assigned to the STIM group ( $n = 30$ , 50/50 male–female, mean age 34.5) and to the SENS group ( $n = 30$ , 50/50 male–female, mean age 35.7), respectively. The sample size,  $n = 30$  per group, has been established based on the results of the 2nd pilot study, with the aim to have sufficient power (80%) to declare a difference of 0.3 points (i.e. practically relevant difference) on pleasantness as statistically significant ( $\alpha = 5\%$ ).

Assignment to one of both groups was conducted through a motivation questionnaire containing 30 statements associated to either sensory enjoyment or stimulation (e.g. "I drink coffee beverage to stay awake" is a statement associated to stimulation motivation). For each statement, they rated a four-point agreement scale

(1. Not at all important, 2. unimportant, 3. important, 4. very important). Scores were averaged across statements within each motivation category and if significantly different they were included in the motivation category with the higher score. If not, participants were not eligible for the study. This questionnaire has been built based on outcomes of previous qualitative and quantitative research performed with the same consumer target to better understand motivations for coffee consumption and is used internally in routine. The questionnaire, which has not been published because of confidentiality issue, is specific to the described consumer target. However, several methodologies exist and can be used to identify consumer motivations (Deliza, Macfie, & Hedderley, 1999; Steptoe, Pollard, & Wardle, 1995).

Participants were not caffeine deprived since we aimed at measuring the impact of associated motivations to coffee on consumer response and not to compare the acute effect of caffeine on consumer response according to their motivation.

All participants gave their written consent and received an incentive for their participation.

### 2.2. Self-report questionnaire

A questionnaire was developed to measure the consumer response on the following items: pleasantness, emotions, the perceived importance of the five sensory modalities (vision, hearing, touch, taste, smell) and the satisfaction for the sensory stimulation from each of the sensory modalities. To assess the emotional state, a product- and context- specific list of 39 emotions was built based on an internal prior qualitative study where we asked coffee beverage users to describe their emotional state after the product consumption. In the present study, all ratings were performed on 10-cm unstructured linear scales, anchored at the extremities. Definitions and anchors for each response are recorded in Table 1. Data acquisition was carried out on a laptop with Fizz sensory software version 2.47B (Biosystemes., 1990).

### 2.3. Research protocol

The test was performed at the Nestlé Research Center (Lausanne, Switzerland) in a kitchen of our Consumer Research Space with standard kitchen appliances and a table to set up a familiar environment. Participants were asked to prepare their cup of coffee beverage as they would usually do by adding their habitual amount of instant coffee and water, and then to drink it. They were aware that the experimenter would ask them to complete questionnaires several times during the experience.

Participants rated as baseline (moment 0) a first questionnaire including pleasantness and emotions. After each of the four moments described below they were then interrupted by the experimenter and asked to rate a questionnaire including pleasantness, emotions and sensory modalities (taste satisfaction was rated after cup drinking moment only):

- Water heating (moment 1): heating of bottled or tap water using a pan or a boiler or a micro-wave oven and during water heating. This moment lasted on average 320 s.

**Table 1**  
Definition and scale anchors of the responses.

Response	Definition	Scale anchors
Pleasantness	How much do you appreciate the experience at this moment of your experience?	"not at all pleasant" to "very pleasant"
Emotions	To what extent do you feel each emotion at this moment of your experience?	"not at all" to "very much"
Sensory modality importance	How important the following sensory modalities are at this moment of your experience?	"not at all important" to "very important"
Sensory modality satisfaction	How satisfying the following sensory stimulation from each of the sensory modality at this moment of your experience?	"not at all satisfied" to "very satisfied"

Download English Version:

<https://daneshyari.com/en/article/6261332>

Download Persian Version:

<https://daneshyari.com/article/6261332>

[Daneshyari.com](https://daneshyari.com)