



British Food Journal

Do anticipated emotions influence behavioural intention and behaviour to consume filled chocolates?

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Article information:

To cite this document:

Sara De Pelsmaeker, Joachim J. Schouteten, Xavier Gellynck, Claudia Delbaere, Nathalie De Clercq, Adrienn Hegyi, Tünde Kuti, Frédéric Depypere, Koen Dewettinck, (2017) "Do anticipated emotions influence behavioural intention and behaviour to consume filled chocolates?", British Food Journal, Vol. 119 Issue: 9, pp.1983-1998, <https://doi.org/10.1108/BFJ-01-2016-0006>

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Do anticipated emotions influence behavioural intention and behaviour to consume filled chocolates?

1983

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Received 8 January 2016
Revised 27 February 2017
Accepted 27 February 2017

Abstract

Purpose – The purpose of this paper is to examine the influence of anticipated emotions (AE) on behavioural intention and behaviour to consume filled chocolates and to give an indication on the possible differences in consumer behaviour between two countries.

Design/methodology/approach – The theory of planned behaviour (TPB) was used to explain the consumption of chocolate. In this study, TPB is extended with a construct for AE.

Findings – A total of 859 consumers in Belgium and Hungary participated in the study and results showed that including AE increases the predicted variance of the TPB. Moreover, AE have a positive effect on the intention and the actual behaviour of consumers. Next, the study suggests that Belgian consumers are more influenced by their emotional and control beliefs and that Hungarian consumers are also driven by opinion of family and friends and some behavioural beliefs.

Practical implications – Overall, TPB can contribute to the understanding of behavioural intention and behaviour towards eating filled chocolate. Moreover, it can help to develop a marketing plan for specific consumer segments as it can identify influencing factors and consumer beliefs towards a product.

Originality/value – This is the first study that compares the fit of the TPB model with and without the construct of AE. The work contributes to the growing literature on emotions as it does not focus on emotions elicited during or after consumption, but explores if the AE also play a significant role in behaviour.

Keywords Marketing strategy, Theory of planned behaviour, Emotions, Consumer behaviour, Chocolate

Paper type Research paper

Introduction

Since the chocolate market is growing and evolving (Monotti, 2008) it is necessary for producers to reveal the key drivers for consumption. The total production has increased by 3.9 million tons in 2012/13 to 4.2 million tons in 2014/15 (International Cocoa Organization, 2015). Furthermore, the chocolate market is projected to grow at a compounded annual growth rate of 2.3 per cent from 2014 to 2019 (Markets and Markets, 2014). In recent years, several studies have therefore examined the factors thriving chocolate and filled chocolate consumption. Rousseau (2015) found that fair trade labels for chocolate are more likely to influence consumer choice than organic labels in Belgium. However, taste outweighs ethical considerations for Belgian consumers (Poelmans and Rousseau, 2016; Vlaeminck *et al.*, 2016). Moreover, one should consider that these influences might differ for vice/virtue



products (Van Doorn and Verhoef, 2011). Filled chocolates are moulded chocolates containing a filled centre with, e.g. fruit fillings, fondant, creams, liquors, etc., which impact the sensory experience compared to plain chocolate. Consumers' preferences for filled chocolates will differ according to their cultural background. For instance, Brazilian consumers prefer strawberry fillings over orange fillings (Miquelim *et al.*, 2008). A study carried out by De Pelsmaeker *et al.* (2015) assessed the characteristics which determine the product quality and consumer acceptability of filled chocolates by Hungarian and Belgian consumers. These characteristics were linked to their expectations and needs to measurable and modifiable parameters applying the adapted house of quality method (Costa *et al.*, 2000).

Many models, which take different, often interrelated factors into account, have been proposed to explain consumer behaviour towards chocolate and filled chocolates. The orientation to chocolate questionnaire (approach, avoidance and guilt) (Cartwright *et al.*, 2007), the attitude to chocolate questionnaire (ACQ) (craving, guilt and functional) (Benton *et al.*, 1998) and the theory of planned behaviour (TPB) (Januszewska and Viaene, 2001) have been used to explain the variance in chocolate consumption patterns. Other researchers used the craving questions from the ACQ (Osman and Sobal, 2006) to also explain the emotions related to chocolate consumption. This is of particular interest given that next to the unique and attractive taste, the popularity of chocolate is known to depend on the emotions that chocolate consumption evokes (Parker *et al.*, 2006; Macht and Dettmer, 2006).

These studies conclude that emotional beliefs and attitudes are important triggers for the consumer behaviour towards chocolate eating. Behaviour will also be influenced by expected or anticipated emotions (AE). Ng *et al.* (2013) already illustrated this in their study on chocolate where they focussed on the difference between anticipated and expected emotions based on packaging or tasting. Similarly, perceived emotions from past behaviour will also affect the expected or AE that drive current behaviour. The current study focusses on AE which are defined as emotional beliefs prior to consumption (Bagozzi and Pieters, 1998; Lundahl, 2012). These AE are included in the TPB to explain the behavioural intention and behaviour of consumers towards eating filled chocolates.

The TPB model is often used in consumer research. The model states that behavioural intention of a consumer is based on attitude (ATT), subjective norm (SN) and perceived behavioural control (PBC). Attitudes are defined as evaluative reactions to performing instrumental actions and are thought to be motivating the consumer to respond in a negative or positive manner to a certain action (Ajzen, 1991). SN captures the interpersonal aspects of behaviour which are largely based on the need of approval for instance by peers or family (Ajzen, 1991). PBC reflects the consumers' sense of control over a specific action (Ajzen, 1991).

However, the method was criticised as it is based on a rational utilitarian model of consumer choice that does not account for unconscious and non-rational processes (Köster, 2009; Köster and Mojet, 2007). Conner and Armitage (1998) indicated that intentions do not always lead to successful prediction of the behaviour. The former is believed to be primarily a motivational process, while the latter is a volitional process. The authors stated that an important shortcoming of TPB is its exclusion of affective processes (Van Der Pligt *et al.*, 1997). Such anticipated affective processes might be significant determinants of attitudes, behavioural intention or behaviour (Van Der Pligt and De Vries, 1998), especially in situations where the consequences of the behaviour are unpleasant or believed to be negative. Simonson (1992) confirmed the effects of anticipated affective reactions on consumer behaviour and suggested that further research to understand this effect is necessary. Moreover, Richard *et al.* (1996) state that besides attitude, SN and PBC, anticipated affective reactions are significant predictors of expected behaviour for eating junk foods, using alcohol and soft drugs. This type of addictive behaviour described by Richard *et al.* (1996) is also found to be applicable for chocolate consumption (Hetherington, 2001).

Several studies attempted to include anticipated affective reactions in various ways into the TPB to explain a specific behaviour. Van der Pligt *et al.* (1997) argued that it is interesting to work with specific affective reactions (e.g. regret, guilt, envy) rather than with simple positive/negative affective reactions. Richard *et al.* (1998) discussed the advantages and disadvantages of measuring these affective influences either as beliefs leading to attitude or as a direct predictor of intentions. Mohiyeddini *et al.* (2009) argued that when the affective beliefs are presented in the TPB as a precursor for attitude, this seems to be so closely related to cognitive and behavioural aspects that its impact on attitude is hardly measurable (Dillon and Kumar, 1985). Another study used AE as a precursor for intentions stating that it transforms the motivational content to act given by attitude, SN and PBC into intention (Perugini and Bagozzi, 2001; Carrus *et al.*, 2008). Although several studies examined the use of AE in the TPB model, little is known on their role in the scope of food choice. Wang (2011) examined the influence of AE on physical activity intentions and behaviour, Carrus *et al.* (2008) for public transportation, Kim *et al.* (2013) examined the TBP for eco-friendly restaurants and Onwezen *et al.* (2014) examined environmental friendly consumer choices. In this study, AE are added as a separate construct and predictor to intention and behaviour of the TPB specifically in the scope of the food choice context (Figure 1).

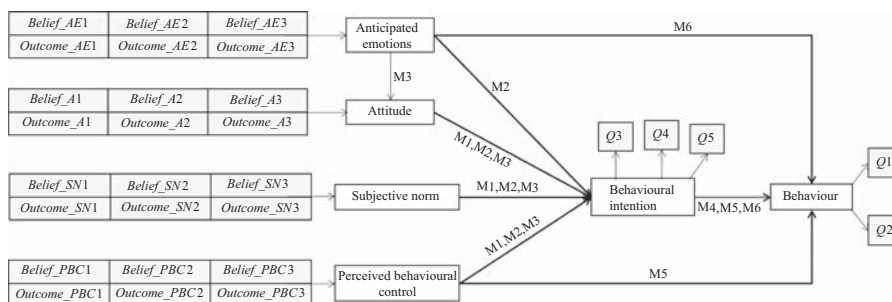
The primary objective of this research is to study consumer behaviour towards filled chocolate consumption in Belgium and Hungary using the TPB as research framework. The second objective is to examine the influence of AE on the behavioural intention and behaviour of chocolate consumers. Finally, the third objective is to determine if there are cultural differences between the Belgian and Hungarian consumers given that filled chocolates are more perceived as a luxurious product in Hungary compared to Belgium. In the scope of this study, filled chocolates were defined as chocolates complex food products that consist of a chocolate shell and specific filling (De Pelsmaecker *et al.*, 2015). The research framework of this study is presented in Figure 1.

Methodology

Participants

Before conducting the final questionnaire, a pre-test with 20 individuals was performed in both countries in line with the guidelines defined by Ajzen (1991, 2010).

A total of 859 respondents completed the final questionnaire (459 in Belgium, 400 in Hungary). Data were collected within a four week time period through an online survey. As incentive, coupons from a bookstore were distributed.



Notes: The grey boxes represent the codes of the questionnaire (Appendix). The M1, M2, M3, M4, M5 and M6 indicate the pathways in the different models as indicated in Table III. Q1-Q5 are direct measurements, belief and outcome questions are indirect measurements

Figure 1. Research framework: the theory of planned behaviour with application of anticipated emotions

In the opening instructions, a description of the questionnaire was provided. Two criteria were used to select respondents: being a consumer of filled chocolates and no participation in a study on filled chocolates during the last six months to avoid biased results. In Belgium the respondents were recruited in Ghent whereas the participants in Hungary were recruited in Budapest.

A convenience sampling procedure was used. It is important to note that the non-probability sampling and respondent selection procedures do not yield a statistically representative sample. Therefore, it is not allowed to generalise the results to the overall population. Nevertheless, the sample covers a wide range of consumers in terms of socio-demographics.

Table I shows that there were more female than male respondents in both countries. In Belgium, younger people participated in the study. The Belgians had a lower BMI than the Hungarian people. In Belgium, more respondents suffered from underweight whereas overweight and obesity occurred more with the Hungarian participants. In both countries, 40 per cent of the respondents indicated that they do not watch their weight.

Methodological concepts of the TPB

As previously indicated, the TPB states that attitude, SN and PBC lead to a behavioural intention and to a final behaviour. According to Ajzen (2010) an attitude is composed of a person's behavioural beliefs (BB_i) towards a certain action and the outcome evaluation of these actions (OE_i). The overall attitude is estimated by aggregating the multiplication of behavioural beliefs and the evaluation of the outcome ($\sum BB_i OE_i$) (Ajzen and Fishbein, 1980).

The second predictor of behavioural intention is the SN. This captures a person's belief on whether family, friends or others will approve or disapprove a certain behaviour. SN is defined as a function of normative beliefs (NB_j) and motivation to comply (MC_j). A similar equation as for attitude is used to calculate the overall SN ($\sum NB_j MC_j$) (Ajzen and Fishbein, 1980).

PBC reflects the decisions maker's sense of control on performing the chosen actions during a decision process. As it incorporates aspects of self-regulation, it is used as a cognitive determinant for behavioural intention. Further, this intention, together with PBC, accounts for a major part of the variance in behaviour. PBC is based on the function of control beliefs (CB_k) and perceived power (PP_k). Again, the multiplication of each control belief to a corresponding perceived power is used to calculate the value for PBC ($\sum CB_k PP_k$).

Table I.
Socio-demographic characteristics of the total sample and both countries separately (in per cent of respondents)

| | Belgian (N = 459) | Hungarian (N = 400) | Total (N = 859) | | Belgian (N = 459) | Hungarian (N = 400) | Total (N = 859) |
|-----------------------|----------------------|------------------------|--------------------|------------|----------------------|------------------------|--------------------|
| <i>Gender</i> | | | | <i>Age</i> | | | |
| Female | 60.1 | 61.5 | 60.8 | < 18 | 1.1 | 0.8 | 0.9 |
| Male | 39.9 | 38.5 | 39.2 | 18-25 | 31.8 | 20.0 | 26.3 |
| | | | | 26-30 | 22.0 | 17.3 | 19.8 |
| <i>BMI</i> | | | | 31-40 | 22.7 | 28.5 | 25.4 |
| < 18.5 | 5.9 | 2.8 | 4.4 | 41-50 | 13.5 | 16.0 | 14.7 |
| 18.5-24.9 | 65.1 | 56.3 | 61.0 | 51-60 | 6.8 | 11.5 | 9.0 |
| 25-29.9 | 22.7 | 29.0 | 25.6 | 61-70 | 2.0 | 5.8 | 3.7 |
| > 30 | 6.3 | 12.0 | 9.0 | | | | |
| <i>Weight control</i> | | | > 70 | 0.2 | 0.3 | 0.2 | |
| No | 40.5 | 41.0 | 40.7 | | | | |
| Yes | 59.5 | 59.0 | 59.3 | | | | |

In accordance to the three pervious factors, the construct of AE is composed as a function of emotional beliefs (EB_i) and emotional power (EP_i). The products of emotional belief and emotional power are summed, similar to the other constructs, to calculate a value for AE ($\sum EB_i EP_i$) (Ajzen and Fishbein, 1980; Ajzen, 1991, 2010).

Set-up and pre-test

The questionnaire is constructed in accordance with the guidelines defined by Ajzen (2010, 1991) who indicated that there is no standard questionnaire for TPB but rather a standard construction procedure. First, an elicitation study is conducted in which salient beliefs are gathered. The questionnaire is then constructed based on these salient beliefs.

A small group of the target population (20 frequent chocolate consumers) were recruited in both countries for the elicitation study to identify the salient beliefs to construct the questions for attitude, SN, PBC and AE. These respondents were selected at Ghent University (Belgium) and Campden BRI (Hungary). Each respondent completed a short questionnaire which contained only open-ended questions. The test was developed in respectively Hungarian and Dutch. The following questions were asked: “Why would you consider to eat or not eat filled chocolates (advantages and disadvantages)?” (attitude); “Are there any individuals or groups who would approve or disapprove if you eat filled chocolates?” (SN); “What factors or circumstances would enable or prevent you to eat filled chocolates?” (PBC); “Which positive and negative emotions do you associate with eating filled chocolates?” (AE). A content analysis of the responses resulted in a list of salient beliefs for the major constructs in the questionnaire (Table II). The number of beliefs that are taken into account is limited to keep the final questionnaire manageable for the respondents. Three or four beliefs were selected based on most given answers in the elicitation study.

Final questionnaire

The questionnaire consisted of two main parts. The first part dealt with socio-demographics. Socio-demographics are assessed through self-reporting and consisted of questions on gender, age, height and weight. Additionally, the respondents are asked if they watched their weight.

The second part consisted of the questions to construct the TPB. Consumers were asked to think about filled chocolates with their most favourite filling. For behaviour and behavioural intention, direct measurements were included as indicated by Ajzen (1991, 2010). For attitude, SN, PBC and AE indirect measurements were used to construct the model (Ajzen 1991, 2010). A predictor variable is measured directly by for instance asking participants about their actual behaviour while indirect measurements will ask respondents about specific behavioural beliefs and outcome evaluations (Francis *et al.*, 2004).

Consumption behaviour (*B*) is measured by two items: “Within the last month, I ate filled chocolates [...]” with scale from 1 (never) to 7 (very frequently) and “The total amount of filled chocolates I ate in the last month (in pieces of filled chocolates) [...]” Given the different scaling formats, the items were converted to z-scores prior to aggregation.

| Behavioural beliefs | Normative beliefs | Perceived ease/difficulty of performing behaviour beliefs | Emotional beliefs |
|---------------------------------------|-------------------|---|-----------------------------------|
| Gaining weight | Family | Have problems with weight | I will feel happy |
| Becoming unhealthy | Friends | When visiting | I will feel guilty |
| Receive an overload in Sugar/calories | Partner | Having trouble with money | I will enjoy it (e.g. nice taste) |
| | | | When I'm worried (comfort) |

Table II. Salient beliefs derived from elicitation study

Behavioural intention (*BI*) is assessed by three items recommended by Ajzen (2010). Two items are given as: “To what degree do you agree with the following statements. In the next month, [...] (1) I intend to have filled chocolates in my household”, and “(2) I plan to eat filled chocolates on a regular basis” rated on a scale from 1 (strongly disagree) to 7 (strongly agree). The third is an open-ended question: “How many filled chocolates do you expect to eat in the next month in pieces?” Again, the items were converted to *z*-scores prior to aggregation.

All the statements formulated based on the beliefs in Table II were preceded by the question: “Indicate for the following statements, how likely you think they are” and measured on a 7-point scale from 1 (extremely unlikely) to 7 (extremely likely). For instance, for the first salient belief, participants were asked to indicate the likeness of the statement “In the next two weeks, I intend to have filled chocolates in my household”.

The measurement of the outcomes was done by reformulating the questions (as suggested Ajzen, 2010). These statements for attitude outcomes were preceded by the question “Please indicate for the following statements how desirable they are” and measured on a seven-point scale. The outcomes for SN were preceded by the question “Please indicate for the following statements how much you care about the opinion of these people regarding the consumption of pralines” and measured on a seven-point scale. Finally, the outcomes for PBC and outcomes for AE are analysed on a scale from 1 (less likely) to 7 (more likely) with the question “Please indicate for the following statements how likely they are”.

The questions related to the TPB can be found in Appendix.

Data analysis

Data were analysed using SPSS Statistics 19. Data cleaning was performed to delete the answers that included a missing variable. The means and standard deviations of the beliefs in all the constructs for both nationalities were calculated. Stepwise linear regression analysis was used to determine the relationships in the TPB as presented in Figure 1.

Results

The mean scores of the measurements of behavioural intention and behaviour confirmed that Hungarian consumers indicate to have a significant higher behavioural intention ($BE = 2.80 \pm 1.64$; $HU = 4.01 \pm 2.04$) and behaviour ($BE = 2.43 \pm 1.70$; $HU = 3.77 \pm 2.06$) for eating filled chocolates than Belgian consumers.

For the Belgian consumers, no significant differences were found for gender and weight control for behavioural intention or behaviour. For age, the results indicate that respondents in the age category 18-30 have the lowest intention to eat filled chocolates compared to older consumers. Correspondingly, these younger respondents indicate to have the lowest actual behaviour to eat filled chocolate. Consumers with a BMI of 25-29.9 indicate to have a higher intention to eat filled chocolate than others. This is not extrapolated in differences for behaviour.

Among the Hungarian consumers, no significant differences were found for age. Female respondents indicate to have a higher behavioural intention and behaviour towards eating filled chocolate. For weight control, the analysis shows that people who watch their weight have a higher behavioural intention and behaviour to eat filled chocolates. Hungarian respondents with a BMI score of 25-29.9 indicate to eat less filled chocolates than other categories whereas the respondents with a BMI score of > 30 indicate to eat filled chocolates most frequent.

Determinants of behavioural intention

Three models were tested to explain the behavioural intention by using linear regression. The first model follows the traditional TPB with the constructs attitude, subjective norm

and PBC (model 1). The second model includes next to these three traditional factors, the AE to explain the behavioural intention (model 2). The third and final model shows an attitude that comprises both the behavioural beliefs and the emotional beliefs (model 3 –Figure 1).

- Belgian consumers

With a Cronbach's α of 0.838, the construct of behavioural intention has a high internal reliability. The first analysis in Table III (model 1) yielded a low percentage of explained variance (17.4 per cent). For the Belgian consumers, subjective norm did not contribute to the explanation of the behavioural intention. This suggests that the behavioural intention is personal for Belgian consumers and that family, friends or other people do not have an influence on intention to eat filled chocolates. However, this may also reflect the unconscious nature of the social influence. Since this is self-reported data, it is necessary to be careful with conclusions.

Attitude is the best predictor of behavioural intention (Table III). The high positive regression and correlation coefficient reflect that the three behavioural beliefs (Table II) measuring attitude also are positively influencing the intention to eat filled chocolates. It must be highlighted that the questions of the behavioural beliefs were stated reversed. Thus if respondents believe that they will not gain weight, are not becoming unhealthy or believe that they are not eating too much sugar or calories, this will positively influence their eating behaviour.

Further, the regression coefficient indicated that the effect of PBC was lower and negative. These results suggest that a high feeling of control has a negative influence on the behavioural intention. A low feeling of control is associated with the intention to eat filled chocolates. This can be attributed to the definition of (filled) chocolate as a comfort food. When a person feels that he/she lost control on a certain situation, they intend to eat comfort food. On the other hand, when a person feels completely in control, they do not have the urge to reach out for comfort food.

Incorporating AE yields a substantial increase in the explained variance to 24.7 per cent (Table III, Model 2) which indicates that this is relevant in predicting the intention to

| Independent variable | | β | Belgium Correlation | R^2 | β | Hungary Correlation | R^2 |
|------------------------------|-------------------------------|-----------|------------------------|-------|-----------|------------------------|-------|
| <i>Behavioural intention</i> | | | | | | | |
| Model 1 | Attitude | 0.399*** | 0.377*** | 0.174 | 0.406*** | 0.407*** | 0.223 |
| | Subjective norm | 0.057 | 0.134** | | 0.123** | 0.238*** | |
| | Perceived behavioural control | -0.173*** | -0.092* | | -0.185*** | -0.157*** | |
| Model 2 | Attitude | 0.325*** | 0.377*** | 0.247 | 0.244*** | 0.407*** | 0.444 |
| | Subjective norm | 0.004 | 0.134** | | 0.058 | 0.238*** | |
| | Perceived behavioural control | -0.074 | -0.092* | | -0.070 | -0.157** | |
| | Anticipated emotions | 0.299*** | 0.391*** | | 0.516*** | 0.620*** | |
| Model 3 | Attitude' | 0.197*** | 0.352*** | 0.198 | 0.103* | 0.300*** | 0.247 |
| | Subjective norm | 0.001 | 0.082* | | 0.102* | 0.287*** | |
| | Perceived behavioural control | 0.313*** | 0.411*** | | 0.393*** | 0.474*** | |
| <i>Behaviour</i> | | | | | | | |
| Model 4 | Behavioural intention | 0.534*** | 0.534*** | 0.285 | 0.792*** | 0.792*** | 0.627 |
| Model 5 | Behavioural intention | 0.530*** | 0.534*** | 0.287 | 0.781*** | 0.792*** | 0.633 |
| | Perceived behavioural control | -0.041 | -0.090* | | -0.074* | -0.196*** | |
| Model 6 | Behavioural intention | 0.480*** | 0.534*** | 0.301 | 0.681*** | 0.792*** | 0.647 |
| | Anticipated emotions | 0.138*** | 0.326*** | | 0.180*** | 0.602*** | |

Table III. Construct parameters (β coefficient, correlation and R^2) for the prediction of behavioural intention and behaviour in TPB

Notes: NS, not significant; * $P < 0.05$; ** $p < 0.01$; *** $p < 0.001$

consume filled chocolates. From the other factors, only attitude remains significant, although the importance of decreases. Both subjective norm and PBC are no longer explaining behavioural intention.

Including AE as a construct, causes a decrease in the regression coefficient of attitude. Thus the idea rises that this new construct can be included in the construct attitude as affective belief (Richard *et al.*, 1998) (Figure 1). Therefore, a simulation of the TPB model is conducted in which the attitude' value consists of both behavioural and emotional beliefs (Table III, model 3). The results indicate that the explained variance (19.8 per cent) is lower than when the model is constructed with AE as a separate independent variable.

- Hungarian consumers

The construct of behavioural intention has a high internal reliability (0.879). Results of model 1 (Table III) show that all three constructs are relevant in explaining behavioural intentions with attitude being the most important predictor. The explained variance (22.3 per cent) of the model is higher than for the Belgian consumers. Subjective norm has a positive influence on the intention whereas PBC has a negative influence. The peers of Hungarian respondents thus might have an influence on behavioural intention unlike for Belgian consumers.

The addition of AE into the model increased the predictive power to 44.4 per cent (Table III, model 2). This construct is the most important factor in predicting intention whereas the influence of attitude decreased. Moreover, subjective norm and PBC are no longer significant. Similar to the data for the Belgian consumers, a new attitude value is constructed which includes behavioural and emotional beliefs (Table III model 3). The explained variance (24.7 per cent) is lower for this model than when AE are a separate independent variable.

Determinants of behaviour

Linear regression was used to identify the predicting concepts and define the explained variance. In the first model, the behaviour is only predicted by behavioural intention (model 4). The second model includes PBC next to the intention (model 5) and in the third model behaviour is explained by the intention and AE (model 6).

- Belgian consumers

The Cronbach's α of behaviour (0.802) confirms a high internal reliability. Model 4 indicated that behavioural intention explains 28.5 per cent of the variance. The results of model 5 (Table III) show that PBC does not influence the behaviour of Belgian consumers. The findings of model 6 (Table III) confirm that for the Belgian consumers both behavioural intention and AE have a significant positive effect on filled chocolate consumption, explaining 30.1 per cent of the variance. The high positive correlation factor of behavioural intention suggests that when consumers have an intention to eat, most of the time they actually eat filled chocolate. Moreover, AE also have an additional positive effect on consumption.

- Hungarian consumers

With a Cronbach's α of 0.866, the construct behaviour for Hungarian consumers has a high internal reliability. Model 4 shows that behavioural intention explains 62.7 per cent of the variance. Model 5 indicates that both intention and PBC have significant impact on the consumption of filled chocolate (63.3 per cent) (Table III). However, although behavioural intention is highly positively correlated, PBC is negatively correlated with behaviour. The latter indicates that individuals who believe to have control will unlikely eat filled chocolate. Model 6 results in an even slightly higher explained variance (64.7 per cent).

Consumer differences between Belgian and Hungarian consumers

Table IV highlights the correlations of the salient beliefs with behavioural intention or behaviour of consuming filled chocolates. These values also present differences in these correlation values between Belgian and Hungarian consumers. The table only shows the significant constructs for the consumers explaining behavioural intention and behaviour as defined in Table III.

For Belgian consumers, intention is influenced by two behavioural beliefs namely “gaining weight” and “level of sugar/calories” whereas the Hungarian respondents only care about “gaining weight”. Again, it must be indicated that the results of the measurements of the behavioural beliefs were reversed. Therefore, this indicates that when consumers believe that they will not gain weight or when they believe that filled chocolate does not have a high level of sugar/calories, it is more likely that they will eat it. For PBC, in both populations all beliefs are correlated to intention. For the Hungarian consumers, all beliefs for subjective norm are also correlated to the intention to consume filled chocolates.

When the model is extended with the construct AE, both groups associate the intention of consuming filled chocolates with a feeling of happiness and indicate that they eat filled chocolates when they worry about something. The Belgian consumers are interested in the enjoyment due to taste whereas the Hungarian consumers associate the intention to eat filled chocolates with a guilty feeling.

The actual behaviour of both respondent groups is related to AE. The significant emotional beliefs that are explaining the behaviour for both nationalities are identical to those explaining intention to consume. Table IV shows that all included control beliefs are significant for the Hungarian consumers in explaining the behaviour.

Discussion

This is the first study that compares the fit of the TPB model with and without the construct of AE. The results clearly indicate that AE help explaining the intention to consume and the actual behaviour of consumption.

| Belief | Correlation to behavioural intention | | Correlation to behaviour | |
|---------------------------------------|--------------------------------------|-----------|--------------------------|-----------|
| | Belgian | Hungarian | Belgian | Hungarian |
| <i>Behavioural beliefs</i> | | | | |
| Gaining weight | 0.099* | 0.209*** | – | – |
| Becoming unhealthy | 0.003NS | 0.072NS | – | – |
| Receive an overload in sugar/calories | 0.105* | 0.010NS | – | – |
| <i>Normative beliefs</i> | | | | |
| Family | – | 0.250*** | – | – |
| Friends | – | 0.272*** | – | – |
| Partner | – | 0.278*** | – | – |
| <i>Control beliefs</i> | | | | |
| Have problems with weight | 0.100* | 0.312*** | – | 0.323*** |
| When visiting | 0.259*** | 0.351*** | – | 0.381*** |
| Having trouble with money | 0.109* | 0.303*** | – | 0.332*** |
| <i>Emotional beliefs</i> | | | | |
| Will feel happy | 0.361*** | 0.169** | 0.301*** | 0.188*** |
| Will feel guilty | –0.023NS | 0.118* | –0.049NS | 0.153** |
| Will enjoy the nice taste | 0.261*** | 0.018NS | 0.154** | 0.005 NS |
| When I'm worried (comfort) | 0.345*** | 0.432*** | 0.237*** | 0.431*** |

Notes: NS, not significant; * $P < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table IV.
Results from four separate regression analyses for both countries with behavioural intention and behaviour as dependent variables and salient belief as independent variables

The first objective of this research was to study the predictive value of the traditional TPB in the context of consumption of filled chocolates in both Belgium and Hungary. Overall, the results of the low explained variance confirm the criticism on the traditional TPB that it might be unfitted for the unconscious processes (Köster, 2009; Köster and Mojet, 2007; Conner and Armitage, 1998).

After analysing the results and using the traditional TPB to explain behavioural intention, attitude was found to be the most important predictor of intention for both nationalities. This confirms previous studies which indicated that attitude is the most important factor for explaining behavioural intention (Januszewska and Viaene, 2001). Moreover, both regression and correlation coefficients were positive which could provide information to improve the marketing communication strategy.

As subjective norm was only significant for Hungarian consumers, the opinion of other people seems to be important for Hungarian respondents but not for Belgian people. The latter finding is in line with previous food choice applications of TPB (Towler and Shepherd, 1991; Thompson *et al.*, 1994) and can be explained by the fact that food choice is a relatively low involvement decision (Brewer *et al.*, 1999). According to Thompson *et al.* (1994), social influence is negligible as behaviour is primarily determined by individual preferences. However, Tuorila (1997) stated that social factors can influence the formation or change of attitudes. The result that subjective norm is important for Hungarian respondents was however expected as focus group discussions which were conducted during the European project ProPraline[®] revealed that filled chocolate is a luxury product in Hungary. Moreover, previous literature indicated that in central European countries chocolate is a product which represents a certain social level (Cidell and Alberts, 2006).

PBC is a significant predictor of behavioural intention in the traditional TPB. Interestingly, the regression coefficient of PBC is negative which shows that a positive feeling of control has a negative influence on intention to eat filled chocolates and vice versa which is consistent with other food choice studies (Blanchard *et al.*, 2009; Verbeke and Vackier, 2005). When a person has a low level of self-confidence in evaluating a product consumption decision, PBC will influence the intention to eat filled chocolates.

The second objective was to study the influence of AE on behavioural intention and behaviour. Integrating AE into TPB increased the explained variance for intention. Moreover, both subjective norm and PBC are no longer relevant in explaining the variance. This can indicate that AE overrule the possible control factors that might be present when intending to consume filled chocolate. The regression analysis of TPB including the construct AE confirms that adding this construct increases the predictive power in both countries. This confirms previous literature that emotions are an essential part of the decision making process (Bagozzi *et al.*, 2003).

For both Belgian and Hungarian consumers, the results indicate that the behaviour to eat filled chocolates is also influenced by AE. The combined influence of behavioural intention and AE gives the highest predictive value. This confirms previous statements that filled chocolates can be called emotive or comfort food (Wansink *et al.*, 2003; Di Monaco *et al.*, 2005) and that next to intention other factors are important to predict behaviour (Conner and Armitage, 1998). This study opted to work with cross-sectional data given that emotions might differ upon the context (Lane and Nadel, 2002; Piqueras-Fiszman and Jaeger, 2014). However, further research might examine to which extend AE are a precursor when working with a longitudinal design.

When developing a marketing plan, information can be gained by examining the salient beliefs that influence a person's intention to behave in a certain way and the enactment itself (Mahon *et al.*, 2006). Hetherington (2001) suggested that the "phenomenon of chocolate addiction" is part of the "cultural vocabulary" and thus cultural-related. The intention to eat chocolate is for Belgian consumers a trade-off between the idea of gaining weight, consuming

too much sugar and control beliefs related to money and emotional beliefs. For the Hungarian consumer, the opinion of peers is an additional influencing factor. The behaviour itself is very much emotionally driven for Belgian consumers, whereas Hungarian consumers can be held back by control beliefs. Again, these results confirm previous studies which labelled chocolate as a comfort or indulgence food (Di Monaco *et al.*, 2005).

These results suggest that both nationalities might need different marketing approaches. Convincing Belgian consumers that eating filled chocolate should not be evaluated as healthy or unhealthy but rather as an enjoyable moment, can increase the consumers' intention to eat these products. A possible example for the Hungarian is that the focus can be on a joyful shared experience with friends and family.

Conclusion

This study is relevant for the scientific field because it captures the influence of the construct AE by comparing the model fit with and without the construct AE for the case of eating filled chocolates. This obtained knowledge can help a company in defining how a specific segment of consumers can be targeted by focussing on certain aspects in the marketing campaign or by developing a product that triggers the factors that makes a consumer buy a product.

However, some limitations need to be considered. First, there may have been a selection bias in the sample due to the sampling method. Second, some studies on TPB have included constructs such as past behaviour (Carrus *et al.*, 2008) and habit (Honkanen *et al.*, 2005) and indicated that these were important in predicting intention and behaviour. These constructs were not included in the given study. This could be a topic for future research as already suggested by Perugini and Bagozzi (2001). Moreover, it might be interesting to include a moral dimension to the model as well.

Further studies could be conducted in which one part would focus on AE and another on perceived emotions.

Overall, TPB can contribute to the development of a marketing plan as it can help to define the influencing factors for the intention or the behaviour of a consumer towards a product. Therefore, this study is also important for the non-academic field. Moreover this study provides suggestions on possible differences in consumer behaviour between Hungarian and Belgian consumers related to the consumption of filled chocolates.

As given by the results, it is important to first arouse the intention to eat filled chocolates. In order to increase the transformation of intention to behaviour, marketers might try to influence emotional beliefs. This can be accomplished by applying marketing methods which is still a topic that is not fully explored by both the academic and industry researchers.

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Appendix

The following questions are about your attitude towards pralines.

1. The total amount of pralines I ate in the last month (in pieces) *Q1*

| |
|--|
| |
|--|

2. Within the last month, I ate pralines... *Q2*

| | | | | | | |
|-------|---|---|--------------|---|---|-----------------|
| Never | | | Now and then | | | Very frequently |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |

3. How many pralines do you expect to eat in the next month in pieces? *Q3*

| |
|--|
| |
|--|

4. To what degree do you agree with the following statements in the next month

| | | | | | | | |
|---|-------------------|---|---|---------|---|---|---------------|
| | Totally not agree | | | Neutral | | | Totally agree |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I intend to have pralines in my household <i>Q4</i> | | | | | | | |
| I plan to eat pralines on a regular basis <i>Q5</i> | | | | | | | |

5. Please indicate for the following statements how likely you think they are.

| | | | | | | | |
|--|--------------------|---|---|---------|---|---|------------------|
| | Extremely unlikely | | | Neutral | | | Extremely likely |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If I eat pralines, I will become obese <i>Belief_A1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Eating pralines is unhealthy <i>Belief_A2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Pralines contain too much sugar/calories <i>Belief_A3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My family thinks that I should eat pralines <i>Belief_SN1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My friends think that I should eat pralines <i>Belief_SN2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| My partner thinks I should eat pralines <i>Belief_SN3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I often have problems with my weight <i>Belief_PBC1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I eat pralines when I visit my family and friend <i>Belief_PBC2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I lack the money to buy pralines <i>Belief_PBC3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel happy when I eat pralines <i>Belief_AE1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel guilty when I eat pralines <i>Belief_AE2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I enjoy the nice taste of the filling of pralines <i>Belief_AE3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I'm worried, I eat pralines <i>Belief_AE4</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. Please indicate for the following statements how desirable they are.

| | | | | | | | |
|--|-----------------------|---|---|---|---|---|---------------------|
| | Extremely undesirable | | | | | | Extremely desirable |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Gaining weight from eating pralines is <i>Outcome_A1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Becoming unhealthy from eating pralines is <i>Outcome_A2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Getting an overload on sugar/calories from eating pralines is <i>Outcome_A3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. Please indicate for the following statements how much you care about the opinion of these persons regarding the consumption of pralines.

| | Not at all | | | | | | Very much |
|--|------------|---|---|---|---|---|-----------|
| Generally speaking, how much do you care what your family thinks you should do? <i>Outcome_SN1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Generally speaking, how much do you care what your friends think you should do? <i>Outcome_SN2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Generally speaking, how much do you care what your partner thinks you should do? <i>Outcome_SN3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. Please indicate for the following statements how likely they are.

| | Less likely | | | | | | More likely |
|--|-------------|---|---|---|---|---|-------------|
| When I'm having trouble with my weight, I am ... to eat pralines <i>Outcome_PBC1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I visit or when I'm visiting family or friends it is ... that I eat pralines <i>Outcome_PBC2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I'm having trouble with money, I am ... to eat pralines <i>Outcome_PBC3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I eat pralines, I will ... feel happy <i>Outcome_AE1</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I eat pralines, I will ... feel guilty <i>Outcome_AE2</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I eat pralines, I will ... enjoy the nice taste <i>Outcome_AE3</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| When I eat pralines, I will ... worry about my weight afterwards <i>Outcome_AE4</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

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