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# UNDERSTANDING THE ANTECEDENTS OF CONSUMERS' ATTITUDES TOWARDS DOGGY BAGS IN RESTAURANTS: CONCERN ABOUT FOOD WASTE, CULTURE, NORMS AND EMOTIONS

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## **ABSTRACT.**

Based on a qualitative study with 20 respondents in France and 20 respondents from the Czech Republic, this study aims to better understand how consumers' concern about food waste, culture, social norms and emotions contribute to restaurants patrons' attitudes and behaviors related to doggy bags. Results highlight a double paradox between conflicting norms and emotions: personal norms encourage not to waste while salient social norms encourage leaving leftovers; asking for a doggy bag generates immediate shame while leaving leftovers produces anticipated regret and guilt. Finally, the study sheds light on obstacles to overcome for the adoption of this innovation.

## **KEYWORDS**

Food waste; restaurants; social norms; emotions; behavioral intentions

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## 1. Introduction

Underestimated for many years, considered a co-product of our society of abundance, food waste is now becoming a major issue in the definition of a sustainable food system (*The Food Loss and Waste Accounting and Reporting Standard*, 2016<sup>1</sup>). Consumers have become more health and environment conscious (i. e. Thøgersen, 2011 ; Klöckner, 2013), more concerned about where their food comes from (Dowd and Burke, 2013) and about food waste (Evans, 2012). In Europe and North America, food losses and waste, including all phases from production to consumption, represent 280-300 kilograms per person a year. The collection and analysis of data from across Europe generated an estimate of food waste in the EU-28 of 88 million tons; this equates to 173 kilograms of food waste per person (Stenmarck et al., 2016). If nothing is done, food waste is expected to rise to about 126 million tons by 2020 (Gustavsson et al., 2011). All actors in the food chain have a role to play in preventing and reducing food waste, from those who produce and process foods (farmers, food manufacturers and processors) to those who make foods available for consumption (hospitality sector, retailers) and ultimately consumers themselves (Parfitt et al., 2010).

The hospitality industry is responsible for a significant part of food waste. In France for example, 15% of all food waste is attributed to the hospitality and food services (Ministère de l'Écologie, du Développement durable et de l'Énergie, 2012<sup>2</sup>). Both academics and professionals in the restaurant industry have pointed out the direct financial and environmental effects of food waste as well as its indirect effect on the restaurant's image (Betz et al., 2015 ; Namkung and Jang, 2013).

Indeed, the restaurant's image is affected by many factors since customers evaluate not only food but also various aspects of service experiences (Han and Kim, 2009). Service quality

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<sup>1</sup> [http://www.wri.org/sites/default/files/FLW\\_Standard\\_V1\\_Full\\_Report.pdf](http://www.wri.org/sites/default/files/FLW_Standard_V1_Full_Report.pdf)

<sup>2</sup> [http://www.developpement-durable.gouv.fr/IMG/pdf/Rapport\\_final\\_gaspillage\\_alimentaire\\_nov2012.pdf](http://www.developpement-durable.gouv.fr/IMG/pdf/Rapport_final_gaspillage_alimentaire_nov2012.pdf)

heightens customer's positive emotion and affects consumer behavioral intentions (Jang and Namkung, 2009; Fernandes and Cruz, 2016). Service employees can add value to the consumption experience by interacting with the customer (Walls et al., 2011). Attending to guests' leftovers contributes to a better service while reducing food waste. Thus, understanding consumers' attitude towards this service and above all, what are the antecedents of this attitude, is important in the restaurant industry. However, while this service is usual in many countries, it remains unknown in several European countries. Therefore, we wish to examine consumers' attitudes and their antecedents in countries where doggy bags are not common.

Consumer attitudes and behavioral intentions towards environmentally sustainable practices in restaurants is an under-explored area in the hospitality literature, despite the growing 'green' trend (Schubert et al., 2010) and additional research on green restaurant practices is needed (Namkung and Jang, 2013). More precisely, no research has examined the perceived barriers and potential benefits of the doggy bag service from the restaurant customers' perspective. In order to fill this gap, this study was designed to understand patrons' attitudes towards doggy bags in restaurants, the antecedents of these attitudes and, perceived barriers preventing the use of doggy bags. It is based on a qualitative study with 20 respondents in France and 20 respondents from the Czech Republic. These two countries were chosen because neither has a tradition of using doggy bags and they also have in common the cultural importance of food. Conversely, France differs from Czech Republic by the level of public policy against food waste. In France, fighting against food waste has become a priority, which is not the case in Czech Republic, and there was in 2015 a first attempt to promote doggy bags.

No study has explored the attitudes related to the doggy bag in order to understand which antecedents contribute to restaurants patrons' attitudes and acceptance or reject of the doggy

bag concept and practice. Thus, the first aim of the study is to explore the patrons' attitudes towards the "Doggy Bag" concept in order to understand how antecedents such as consumers' concern about food waste, culture, social norms and emotions contribute to restaurants patrons' attitudes and declared behaviors related to doggy bags. Finally, it sheds light on obstacles to overcome for the adoption of this social innovation and proposes future research avenues.

## **2. Conceptual framework**

### ***2.1 Culture and norms in restaurants***

Culture and social norms in restaurants influence the way of eating (Rozin et al., 2003) and different practices such as tipping or using doggy bags (Melvin, 2014). Culture plays an important role in the relationship with food. For example, Rozin et al. (2003) show that part of the "French paradox" can be explained by the fact that the French eat less than Americans. In particular, French portion sizes are smaller in comparable restaurants, the French take longer to eat than Americans and the French focus more on the experience of eating while Americans focus more on the consequences of eating (Rozin, 2005).

However, culture affects not only food but also practices and behaviors. The case of tipping is a case of practice which varies among cultures (i.e. in the United States, tipping is necessary for servers to earn a decent wage since the federal minimum wage is very low<sup>3</sup>) but also according to food servers' appearance (Guéguen and Jacob, 2014) or behavior (Seiter and Weger, 2010). The doggy bag is another example of practice which varies a lot among cultures. Unknown in some countries, it is usual in the U.S. where researchers do not explore its potential acceptance by consumers but the way food servers handle customers' leftovers.

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<sup>3</sup> <https://www.dol.gov/whd/state/tipped.htm>, we thank one reviewer for this information

For example, Seiter and Weger (2014) show that the principle of reciprocity leads restaurants' customers to give higher tips to food servers if they box customers' leftovers.

Besides culture, social norms influence customers' behaviors in restaurants. Since a restaurant is a public space, customers often act in the way they think other customers act or expect them to act. An important question is whether and how social norms in restaurants may evolve. According to Azar (2004), a social norm will erode if people do not derive benefits in addition to conforming to the social norm. His study on the evolution of the tipping custom in the United States shows that at least some people derive benefits from tipping, including the desire to feel generous and kind, to impress others and, to show gratitude and reward the worker for good service (Azar, 2004). Besides, this study highlights the importance of emotions in the restaurant experience. According to Azar, tipping is associated with positive feelings and emotions such as being fair, feeling empathy with workers and prevents from feeling "cheap". Hence, tipping is "a pattern of behavior enforced in part by internal sanctions, including shame, guilt and loss of self-esteem, as opposed to purely external sanctions, such as material rewards and punishment" (Gintis, 2003).

The role of emotions is intuitive given the hedonic nature of restaurants. Jang and Namkung (2009) showed that positive emotion (joy, excitement, peacefulness, and refreshment) mediates the relationships between atmospherics and service, and post-dining behavioral intentions. Han et al. (2009) confirmed that multiple components of consumption emotions (excitement, comfort, annoyance, and romance) significantly affect customer satisfaction, and satisfaction mediates the effect of emotion factors on revisit intention. However, if different types of emotions were included in these studies, emotions related to sustainability and food waste were not.

## ***2.2 Consumers and food waste: concern, norms and guilt***

Most studies dealing with food waste show that consumers feel bad about wasting food (Evans, 2012; Watson and Meah, 2012) and are concerned when they throw food away. Le Borgne et al. (2016) define a consumer's concern for food waste as attaching importance to food waste and its consequences and as being emotionally affected by the experience of food waste or the general issue of food waste. No research has examined yet consumers' concern about food waste in restaurants. However, restaurant green practices influence customers' perceived quality and restaurant brand equity (Namkung and Jang, 2013).

Social norms and guilt are important in increasing consumers' ethical intentions and pro-social behavior (Steenhaut and Van Kenhove, 2006 ; Hibbert et al., 2007) and more precisely, according to Quested et al. (2013), guilt plays an important role in reducing food waste. However, existing studies regarding food waste at home only have considered the feeling of guilt after food is wasted. Anticipated guilt, defined as “guilt that arises from contemplating a potential violation of one’s own standards” (Cotte et al., 2005), seems particularly relevant in the context of restaurants. Close to anticipated guilt, anticipated regret can be defined as “a counterfactual emotion that is experienced in the present situation when imagining the results of a future outcome” (Bui, 2009). In restaurants, the role of anticipated regret in consumers' intentions to select eco-friendly restaurants has been highlighted (Kim et al., 2013). In the context of hotels, invoking social norms and increasing anticipated guilt are a way of encouraging consumers to engage in sustainable behaviors (hotels' linen-reuse programs, Goldstein et al., 2007; or reusing of towels, Theotokis and Manganari, 2015). However, to our knowledge, no study has focused yet on the potential impact of social norms and emotions related to food waste in a restaurant context.

To conclude, past research provides evidence regarding on the one hand the importance of culture, social norms and emotions in restaurants and, on the other hand, the influence of social norms and emotions on attitudes and behaviors related to food waste. However, no

research has explored the attitudes and behaviors related to the Doggy Bag concept in order to understand if and how consumers' concern about waste, culture, social norms and emotions contribute to restaurants patrons' attitudes and behaviors related to doggy bags. This study, therefore, proposes to explore the potential relationships between these variables in order to try to understand customers' acceptance or reject of the Doggy bag concept and practice by uncovering perceived barriers and potential benefits.

### **3. Research Methodology**

#### ***3.1 Rationale for focusing on France and Czech Republic***

France and the Czech Republic were chosen because they have both common characteristics, such as the cultural importance of food, and differences, such as the level of concern and public policy about food waste. Food and cuisine are very important to the French and Czech culture. French and Czech cuisine also have in common a centuries-old tradition, even though they have been influenced by the cuisine of neighbouring countries. As mentioned previously, the French focus a lot on the experience of eating (Rozin, 2005) and it is the same for Czech consumers. In line with this importance given to food, children are raised in France with the instruction 'You will finish what I put on your plate' (Melvin, 2014).

France has faced up to the issue of food waste in recent years. The total volume of food waste in France exceeds 7 million tons for 2010 (more than 110kgs per person) of the total 90 million tons for the whole EU. The biggest waste is produced by consumers themselves (with 67 % of the total waste), but the part of hospitality with its 15 % is not insignificant: 4.740 million tons are wasted at the households level, 1.050 million tons by restaurants, 0.750 million tons at the trade and distribution level, 0.400 million tons in open markets, 0.150



million tons by the food industry<sup>4</sup>. The 2015 anti-waste law has set a target of cutting trash in half by 2025. The establishments that serve more than 180 meals per day will have to, by 2016, sort and reduce waste or face heavy fines. The situation is quite different in the Czech Republic for which food waste is not a priority. The Czech Republic produces annually an estimated 729,000 tons of food waste, which represents more than 69 kg per person (Glopolis<sup>5</sup>). This is lower than the figures for France. However, official figures/statistics do not exist. The concept of doggy bag is not well-known in France, being confronted with cultural obstacles on the part of consumers and a lack of knowledge of regulations by the restaurant owners. An initiative by the French agency for environment (ADEME, Agence de l'Environnement et de la Maîtrise de l'Energie) was launched in 2015, aiming at spreading the doggy bag in France, renamed for the occasion the "gourmet bag". In the Czech Republic, this concept is quite unknown.

### ***3.2 Sample and Data Collection***

An illustrative sampling method was chosen to generate a sample representing a mixed population. Our sampling frame was defined by: (1) age (18–29 years/30–49 years/50+ years), (2) education level (e.g. college, university/higher education) and (3) profession (i.e. student, inactive, retired, worker). The sample is a convenience sample but the adults who accepted to participate have no links with the university. 45 French persons and 38 Czech persons were contacted (response rates 44% and 52%). Data collection ceased when saturation appeared to have been reached. In both countries, women were more willing to participate so the majority of respondents are women in both samples. 20 interviews (4 men and 16 women) were carried with people from the Czech Republic. The average age of all respondents was 38.6 years. 20 interviews were done with people from France: 7 men and 13

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<sup>4</sup> [http://www.developpement-durable.gouv.fr/IMG/pdf/Rapport\\_final\\_gaspillage\\_alimentaire\\_nov2012.pdf](http://www.developpement-durable.gouv.fr/IMG/pdf/Rapport_final_gaspillage_alimentaire_nov2012.pdf)

<sup>5</sup> [www.Glopolis.cz](http://www.Glopolis.cz)

women. The average age of all respondents was 32.6 years. Participants were given codes for names to protect confidentiality. The samples are presented in Appendix 1 and Appendix 2.

The interviews were carried out in May and June 2015 by French and Czech interviewers (one academic and two graduate students). Czech interviewers conducted the interviews with Czech respondents and translated interviews into French. A scenario-based qualitative study was used, involving hypothetical patrons' behaviors regarding leftovers. Given the difficulty of identifying consumers with specific experiences, the scenario-based approach ensures a good coverage of the different possible outcomes. Moreover, the scenario-based approach overcomes some of the ethical concerns associated with the deliberate elicitation of emotions amongst human subjects (Schoefer and Ennew, 2005). More precisely, respondents had first to react on the basis of two different behaviors in a restaurant: one customer asking for his leftovers to be boxed, the other one leaving his leftovers in the plate and leaving the restaurant. Then a discussion was conducted about (1) the doggy bag concept and (2) food waste in general.

Scenario – “*Imagine the following situations. First situation: you are sitting in a restaurant and the customer next to you asks for his leftovers to be boxed, Second situation: same context but the customer leaves his leftovers in the plate, pays and leaves*”. (follow-up questions: *Describe what type of person. (gender, age, education, general characteristics) What is the difference between the two cases? In your opinion, in what type of restaurant do these situations take place? What do you think of these behaviors?*)

1) Doggy bag (e.g. *Do you know the concept "Doggy bag"? Do you like this idea? Do you have any experience with it? Have you ever asked for one (what was the dish, in what restaurant)? What type of food is appropriate and not appropriate for this*

*concept and why? What quality/s must the doggy bag have according to you? What is the main reason why this concept is not so widespread in France / Czech Republic?)*

2) Food waste in general (*e.g. what do you think of food waste? In your opinion what are the consequences of food waste? Where is the biggest food loss from your perspective (producers, consumers, retail or restaurants...)? In general are you concerned by food waste?*)

The interviews lasted between 45 and 60 minutes, and were recorded and transcribed, in order to be analyzed in parallel by the authors.

The interviews were analyzed using qualitative content analysis. The analysis adhered to the following format: reducing of data, recompilation of data, interpretation and conclusions (Miles and Huberman, 1994). The content analysis and coding of the data were performed according the literature (Kassarjan, 1977). Two separate judges coded the data; the interrater reliability between the coders was 90 percent, which is above the satisfactory level of 85 percent agreement (Kassarjan, 1977). Table 1 compiles the main themes and sub-themes.

Table 1. Themes classification

Themes	Sub-themes	
Relation with Doggy bag		
	- Awareness	Heard/never heard. Know/do not know
	- Attitude	Good-great idea-option; interesting
	- Behavior	Already used/never used
Doggy bag users		
	- Image	Negative/positive
	- Motivations / Environmental concerns	Food waste concern, planet, environment, organic
	- Motivations / Ethical concerns	Ethics, poor people, hunger

	- Motivations / Financial concerns	Price, rich/poor, status, money, food value
	- Socio-demographics	Young/old, man/woman
Appropriate restaurants		
	- Scale	Lower scale/ fine dining, popular, portions
	- Country	International/local, typical cuisine
Barriers preventing DB use		
	- Culture, education	Tradition, history, family, parents
	- Social norms	Customs, rude, trouble, problems, normal
	- Quality concerns	Conservation, safe
Negative emotions		
	- Immediate	Shame, dare
	- Anticipated	Guilt, regret, sorry

## 4. Research findings

### 4.1 The attitude-behavior gap

The first result in both samples is a declared concern for food waste and a positive attitude towards the doggy bag concept. Few respondents are not interested in the concept of doggy bag (1 Czech respondent, 3 French respondents). For them, the doggy bag does not seem to provide a distinctive value that would meet an expectation or a dissatisfaction with the existing offering (Ram and Sheth, 1989). On the contrary, most of them (18 Czech respondents, 15 French respondents)<sup>6</sup> have a positive attitude towards the doggy bag concept (*“I'm sure it's great when you're not hungry or you hurry somewhere. You're sorry to leave it there. It is a good option”* (CR17)). Indeed, almost every one could understand its utility and its link to avoiding food waste. The general idea was approved even if some still had doubts about whether or not the food would really be eaten later. The concept is clear and

<sup>6</sup> Only 1 Czech respondent and 2 French respondents had neither positive nor negative attitude

understandable by all the respondents. The persons who ask for their leftovers to be packed are described as environmentally concerned: *“persons who are concerned by this problem and sorry to throw food away”* (CR9); *“The person asking for a doggy bag is environmentally friendly and is eating organic.”* (FR13); *“Or simply it’s someone who never throws food away”* (FR7); *“This is a person who is aware that throw away the food is not good”* (FR1).

In contrast with this positive attitude, only one Czech respondent and two French respondents had asked at least once for handled doggy bag. This attitude-behavior gap can be explained by the perceptions of customers and restaurants adopting doggy bags.

#### ***4.2 Perceptions of customers and restaurants adopting doggy bags***

Customers who ask for doggy bags are seen as consumers with financial problems. For 16 Czech respondents and 11 French respondents, leaving leftovers is clearly a symbol of social and/or financial status: *“The one, who left his food, is definitely a guy. He is maybe a director of the company at the age of 30-40.”* (CR17) *“The one, who didn’t take his food, is a person of higher status. Perhaps he may feel it is not appropriate to take his meal with him. He is financially secure.”* (CR7). *“Someone who will take home the meal is someone who has less money, than the one who will leave it.”* (FR11). In the same vein, respondents associated doggy bags with lower scale restaurants. *“A restaurant, where people let their food be packed, is a lower price category. It’s certainly not a fine dining restaurant.... It is a restaurant, where people have a lunch menu.”* (CR8). *“It will not be well accepted in a fine dining restaurant.”* (FR3). *“It is normal in popular restaurant, pub or coffee.”* (FR9). However, the question of the value of food is ambiguous. If for some respondents, high value food seems *“too good to be packed”* (FR3), for others, it seems to be too good to be wasted. *“It is awful when I really cannot eat a very good dish till the end in a very good restaurant. It makes me sick to think they are going to throw it away”* (FR 19)

The respondents also believed that doggy bags were not acceptable in Czech or French restaurants but were relevant only for international cuisine. *"It does not work for typical Czech cuisine. Italian meals are better because they are already mixed; it is easier to pack them."*(CR9). *"I did it in a Chinese restaurant or in a Thai restaurant. It was a mixture, which was a huge portion. And I think I did it even in a pizzeria with half of a pizza."* (CR11). *"In a pizzeria, an Indian, a Chinese restaurant it is acceptable to ask for."* (FR8). Respondents gave two main reasons: (1) Czech or French dishes are not adapted to be taken away and re-heated and (2) in Czech or French restaurants portions are more adapted, while in "foreign" restaurants portions are often too big. Behind these reasons, the respondents' discourse highlights the differences between food cultures already studied by Rozin (2005).

#### **4.3 Declared obstacles to the adoption of doggy bags**

Respondents evoke their education and culture to explain that if the doggy bag is a good concept, it is not relevant for them. *"For us it is a completely different style of eating in comparison with America. There is not an inclination to ask for it. Czech cuisine is not fully adapted. Czechs generally do not like to eat the same meal twice. Secondly, in our country people are traditionally used to finishing their meal"* (CR15). *"I come from a family where it was said that bread is a gift of God. So parents always gave emphasis on the careful handling of food. They almost threw nothing away. I continue in that spirit. I do not throw food away."* (CR8).

Descriptive social norms also influence the behavior described as habits (*"It comes from history and French customs. When we go to the restaurant, we're just not used to it."* (FR7)). In addition, negative emotions are expressed, mainly immediate shame. *"Most people are ashamed and leave it on the plate, even if they want to take it away."* (CR5). *"The typical French has trouble to raise his hand and demand to pack the leftovers from his plate."* (FR5).

Respondents reported feeling shame in front of other customers but also in front of the restaurant owner (*"It's not rude but culturally it's not normal."* (FR10)) and the social pressure seems to be strong (*"People pay and after they want to leave without making problems"* (FR13)).

A perceived paradox clearly appears: consumers do not want to throw food away to be consistent with their personal norms and values, but at the same time social norms prevent them from asking the servers to handle their leftovers. Hence respondents feel anticipated regret (*"Of course it is a good idea, but I would never dare asking for it, even if after I regret"* (FR18).)

## **5. Discussion and conclusion**

### ***5.1 A double paradox between conflicting norms and emotions***

Two related paradoxes emerge: the first one regarding norms and the second one regarding immediate and anticipated emotions. Personal norms, in relation with culture, education and environmental concern, encourage respondents not to waste; but at the same time, salient social norms encourage restaurant customers to leave their leftovers. This paradox between conflicting norms leads to the feeling of opposite negative emotions: asking for a doggy bag generates immediate shame but leaving leftovers produces anticipated regret and/or guilt. The immediate shame related to asking for a doggy bag is associated with the social context while the anticipated regret related to wasting food is associated with internal attribution, which confirms differences in the self-regulatory function of emotions (Onwezen et al., 2014). Our findings thus confirm previous studies showing that social norms and anticipated guilt may increase consumers' ethical intentions and pro-social behavior but, contrary to past research, this study highlights conflicting social norms leading to immediate shame as a barrier preventing pro-social behavior.

### ***5.2 Barriers to overcome for the adoption of an innovation such as the doggy bag***

To encourage consumers to adopt the doggy bag, it is necessary to enhance the perceived benefits retrieved from using them (Azar, 2004) and reduce negative emotions such as shame. However, the results also show that the context itself is a barrier preventing the adoption of doggy bags. Hence, it is necessary to act both on existing behavior and on the new behavior that one wants to promote. Behavioral habits are strongly connected to the context in which they occur, which explains why a change of motivation or intention without a change in the associated context will fail to change people's habits (Neal et al., 2012). In restaurants, the use of doggy bags has to appear easy and "normal", i.e. accepted by others and not generating shame. Indeed, the doggy bag could be seen as a social innovation, requiring appropriation by increasingly numerous consumers. Our results show that consumers seem interested in this concept and are willing to use it, but the interviews also reveal the lack of appropriation and social identification, which leads the respondents to resist the doggy bag concept as an innovation. These results confirm past research on the resistance to social innovation (Gurviez and Sirieix, 2013).

### ***5.3 Handling leftovers: usefulness, limits and alternatives***

Handling leftovers is a service that can be valued by customers. Previous studies showed that restaurant customers have a stronger intention to revisit a restaurant when they received individualized services (Han and Kim, 2009) and, in particular regarding servers' approach to handling leftovers (Seiter and Weger, 2014). Results of this study could assist restaurateurs better understand specific emotions such as shame and guilt in their restaurants. If correctly adapted to the type of restaurant, the doggy bag concept could be a mechanism by which restaurant operators could generate a higher level of customer loyalty. Thus it may be



worthwhile to focus on different motivators and barriers regarding the use of doggy bags for different types of restaurants.

In order to make the doggy bag appear not only “normal” but desirable, restaurants could automatically offer nice doggy bags as though it was a valuable gift. In some high-end restaurants in the United States, waiters take leftovers and package them in a foil “swan”, suggesting in a positive and rewarding way to taking food home. In the same vein, public campaigns could imply a celebrity to show how “trendy” the use of doggy bags can be. In France, such a campaign implying Karl Lagerfeld wearing a yellow reflective vest for a road safety awareness campaign was a real success.

However, doggy bags may also be mainly seen as useful to increase awareness about food waste. Restaurant owners and customers may adopt other ways of reducing food waste in restaurants at the customer’s level such as the possibility of asking/serving smaller or half- portions. One study by Wansink and Van Ittersum (2013) shows for example that Chinese buffet diners with large plates served 52% more, ate 45% more, and wasted 135% more food than those with smaller plates. Thus offering small vs larger plates appears as another option so that customers get the amount of food they actually can eat.

#### ***5.4 Limitations and further research***

Although the results of the current study provide information about the antecedents of attitudes about food waste and behavioural intentions of doggy bags, it is not exempted from limitations. The first limitations of this study are inherent in the methodology used, leading to results that cannot be generalized. In particular, the sample population was only 40 respondents from two countries, which was relevant for the qualitative study; however, no strong difference appeared between the results from the two samples, which does not mean that no difference exists between consumers in both countries. We could have expected some differences since in France there was an attempt to promote the doggy bag concept, but the

lack of difference is consistent with previous results showing that education does not appear effective in reducing food waste in restaurants (Wansink and Van Ittersum, 2013). In addition, both French and Czech cultures already place an importance on food and not wasting it.

The purpose of the study was to explore different antecedents and their relationships with the concept of doggy bag, not to estimate and compare the percentage of consumers in each country, willing to adopt the doggy bag. In order to obtain this result, a quantitative study is needed, which could be extended to other countries where the concept of doggy bag is not familiar and countries more familiar with this concept. This future research should also propose a model and test the influence of concern about food waste, culture, social norms on the attitudes and behaviors regarding doggy bags' use. It could also examine the potential role of emotions as mediators between these antecedents and the attitudes and behaviors regarding doggy bags' use. Another limitation lies in the fact that the scenario evoked a restaurant, without making differences between the different segments of restaurants, from quick-service to full-service restaurants. Yet, the interviews made clearly appear that perceived barriers, social norms and negative emotions are more salient in full-service restaurants. Thus future research should make the distinction between different types of restaurants (fine dining vs popular restaurants, full-service vs quick service, local vs international restaurants). The final limitation lies in the data collection method, based on interviews. In order to better understand immediate and anticipated emotions and salient social norms in restaurants, future studies based on observations in an actual restaurant setting with different types of restaurants, are needed to achieve greater validity.

## **Appendix 1**

### **Respondents from Czech Republic**

<b>Respondent</b>	<b>Sex</b>	<b>Age</b>	<b>Education</b>	<b>Occupation</b>
CR1	Female	24	University	Student
CR2	Man	33	College	Worker
CR3	Female	24	University	Student
CR4	Female	25	University	Student
CR5	Female	47	College	Worker
CR6	Female	72	College	Retired
CR7	Female	23	University	Student
CR8	Female	75	University	Retired
CR9	Man	45	College	Worker
CR10	Female	27	University	Worker
CR11	Female	45	College	Worker
CR12	Man	31	University	Student
CR13	Female	50	University	Worker
CR14	Female	40	College	Worker
CR15	Female	24	University	Student
CR16	Female	45	University	Worker
CR17	Female	20	College	Student
CR18	Female	25	University	Student
CR19	Man	24	College	Student
CR20	Female	73	University	Retired

## Appendix 2 Respondents from France

<b>Respondent</b>	<b>Sex</b>	<b>Age</b>	<b>Education</b>	<b>Occupation</b>
FR1	Woman	23	University	Student
FR2	Woman	60	University	Worker
FR3	Woman	20	University	Student
FR4	Woman	21	University	Student
FR5	Man	23	University	Student
FR6	Woman	23	University	Student
FR7	Man	21	University	Student
FR8	Man	22	University	Student
FR9	Man	23	University	Student
FR10	Woman	45	College	Worker
FR11	Woman	21	University	Student
FR12	Woman	21	University	Student
FR13	Woman	21	University	Student
FR14	Man	22	University	Student
FR15	Man	45	University	Worker
FR16	Man	32	University	Worker
FR17	Woman	63	College	Retired
FR18	Woman	54	University	Worker
FR19	Woman	51	University	Worker
FR20	Woman	40	University	Worker

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