



# The Defaulted Doggy Bag

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## Overview

### The need

Food waste in the Hospitality and Food Service sector is a significant problem. In the UK it was estimated that in 2016 wasted food cost this sector £3 billion [1]. Furthermore it was estimated that 34% of the food that was wasted in this sector came directly from consumer plates [1]. In Europe, taking leftovers home from a restaurant can lead to both feelings of pride about not wasting and feelings of embarrassment due to violating a social norm [2].

### The solution

The current default situation is one in which asking for and offering a doggy bag is uncommon. This study examines whether changing the default situation will lead to higher uptake of doggy bags, and whether this also translates into less food waste. Three experiments were conducted in which the effects of changing the default situation and offering choice on doggy bag uptake were examined.

### The benefit

Based on the findings, advice can be given to restaurants who want to limit plate waste, about how to advocate the uptake of doggy bags.

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The effects of changing the default and offering choice on doggy bag uptake

In Europe, taking leftover food home from restaurants (i.e., using doggy bags) results in a paradox between conflicting norms and emotions. The personal norm not to waste conflicts with feelings of embarrassment that can arise when customers are required to ask for doggy bags to take their leftovers home [2]. To counter this, restaurants can attempt to normalise the use of doggy bags.

## Background

Food waste in the Hospitality and Food Service sector is a significant problem. In the UK, for example, one study estimated that the cost of food being wasted from the UK Hospitality and Food Service (HaFS) sector was £3 billion for 2016. Furthermore, the same study estimated that approximately 34% of this wasted food was directly from consumer plates [1]. One approach to addressing the issue of avoidable food waste being discarded from consumers plates is the use of “doggy bags”. Doggy bags refer to bags or containers that are provided by restaurants, in which consumers can put any leftover food for later consumption.

When consumers are faced with the choice of accepting or not accepting an option, how the choice is presented to them has a huge impact on their decision (e.g. opting in or opting out). In the case of doggy bags, if an “opt-in” approach is adopted, where customers must ask for a doggy bag, this may not suffice for consumers to take a doggy bag home. On the other hand, providing an “opt-out” option,



where consumers receive a doggy bag unless they indicate otherwise, may increase the use of doggy bags. However, this alone is not going to diminish food waste unless consumers eat the leftover food rather than discard it at home.

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*"Encouraging the offering and accepting of uneaten food is important, because it isn't food that is actually waste. It's food that can be eaten and shouldn't be in the bin."*

Ryan James, chair of Glasgow Restaurant Association, <https://www.heraldsotland.com/news/16084550.would-you-be-embarrassed-to-ask-a-restaurant-for-a-doggy-bag/>

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## What was the solution?

Through REFRESH, Wageningen University developed a project to investigate how different approaches to the distribution of doggy bags in restaurants could impact:

1. The uptake of doggy bags
2. Whether the leftover food was consumed later

Specifically, the research aimed to look at four different strategies that could be adopted:

### Strategy 1:

Consumers were provided the option to take a doggy bag, but needed to explicitly ask for one

- This is the current practice at restaurants

### Strategy 2:

Consumers were given the option to take a doggy bag by indicating whether they wanted one (yes/no)

- This aligns with the consumers' personal norm not to waste

### Strategy 3:

Consumers were presented with a doggy bag unless they explicitly said that they did not want one

- This is different to the current practice in which doggy bags are not offered unless the consumer requests one.

### Strategy 4:

Consumers were given a choice between a plastic or a cardboard doggy bag

- By providing a choice between two options, this implies that using a doggy bag is the default/norm and preserves the customer's sense of freedom.



Three different experiments were undertaken to assess which strategy is the most effective in encouraging the use of doggy bags to reduce food waste.

## Implementation

Experiments took place in succession throughout 2018. In the first experiment, a group of 50 student participants were presented with a situation judgement test. Participants were asked to read a restaurant scenario and answer questions about a) whether they would use a doggy bag or not and b) how they would feel about their choice.

In the second experiment, a group of 178 students from Wageningen University were presented with a crackers taste test. On the final instruction sheet, participants were presented with one of the four strategies regarding taking leftover crackers home.

In the final experiment, a group of 167 students from Wageningen University were offered a free lunch (Figure 1) at the cafeteria. Consumers were presented with one of the same four strategies as in the second experiment. In addition to examining whether consumers took a doggy bag or not, participants were contacted a week later and asked whether they had consumed the leftover food that they had taken home.



Figure 1 - An example of the free lunch provided in the final experiment



## Outcomes

The first experiment established that the existing social norm was to leave the food (72%) rather than take a doggy bag (6%). The results also suggest that the use of doggy bags indeed reflects a situation in which social norms are not aligned with personal feelings about behaviour. After reading the restaurant scenario, participants indicated that they would feel less guilt, more pride, less anger towards themselves, but also more shame, when asking for a doggy bag compared to leaving leftovers on the plate.

In the second experiment, when consumers were presented with a doggy bag irrespective of whether they requested one (Strategy 3), the use of doggy bags was 69.6%. In contrast, when Strategy 2 was presented, and consumers were simply provided the choice of using a doggy bag, uptake was 37.5%. The results suggest that to increase the uptake of doggy bags, they need to be offered to consumers as a default, since merely providing the choice, even very explicitly, is not as successful.

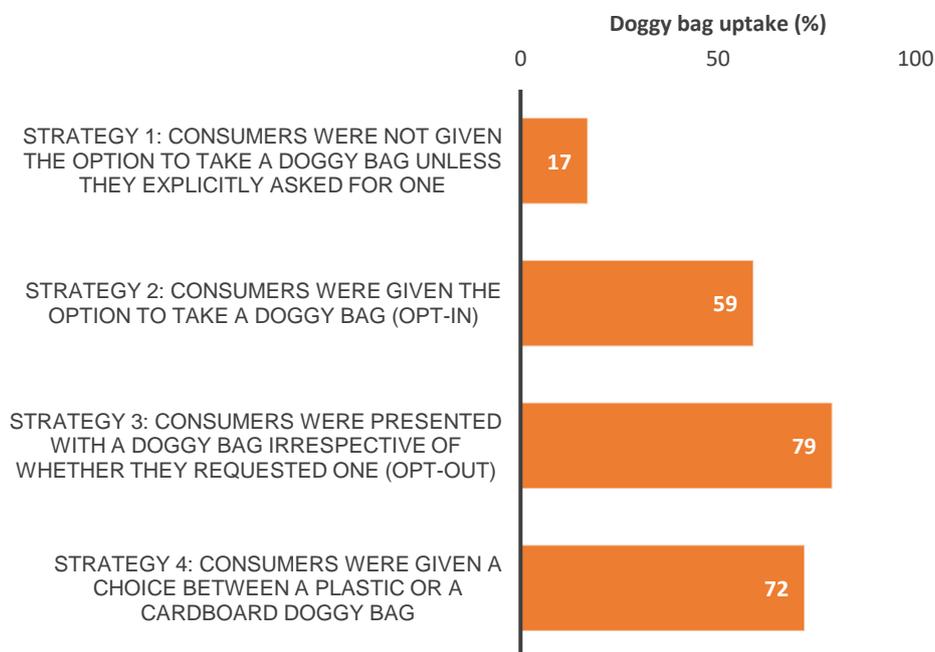


Figure 2 - Experiment 3 - The percentage of participants using doggy bags for each tested strategy



In the final experiment, when consumers were not explicitly presented with the option to take a doggy bag (Strategy 1), uptake was low (17 %) (Figure 2). However, when choice was provided (Strategy 2), 59 % of consumers would choose to take a doggy bag. When consumers were presented with a doggy bag irrespective of whether they requested one (Strategy 3), uptake was high at 79 %. When presented with the option of a plastic or cardboard doggy bag (Strategy 4), uptake was also high at 72 %. The difference between Strategy 3 and 4 was not statistically significant. The likelihood of eating (at least part of) the food in the doggy bag was high (89.3%) and not significantly different between each of the strategies.

## Thoughts for the future

Changing the doggy bag default from a consumer request to a strategy in which doggy bags are presented unless the consumer indicates that he/she does not want one appears to be an effective way to entice consumers to take home leftover food from restaurants. There was no evidence that this transfers food waste from the restaurant to the home; rather, consumers are likely to eat leftover food regardless of the influence strategy used. For restaurant managers, providing choice to consumers might be advisable as this could increase consumer satisfaction with the restaurant, although this is unlikely to affect the likelihood of taking a doggy bag.

## References

1. WRAP (2013) Overview of Waste in the UK Hospitality and Food Service Sector <http://www.wrap.org.uk/sites/files/wrap/Overview%20of%20Waste%20in%20the%20UK%20Hospitality%20and%20Food%20Service%20Sector%20FINAL.pdf>
2. Sirieix, L., Lála, J., & Kocmanová, K. (2017). Understanding the antecedents of consumers' attitudes towards doggy bags in restaurants: Concern about food waste, culture, norms and emotions. *Journal of Retailing and Consumer Services*, 34, 153-158.