

Influencing others to prevent hospitality food waste: The reception of food waste messages by hospitality employees

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ABSTRACT

Hospitality employees play a crucial role in food waste prevention, yet there is little understanding of how employees can influence the way food waste is thought about and dealt with within their workplace. To address this gap, we conducted semi-structured interviews with 23 UK hospitality actors, including frontline employees, managers and business owners to understand how they influence others, and have been influenced by others, to prevent food waste. We analyse the data through a sensemaking lens, which shows that food waste messages are received and made sense of instantly, or with delay due to exposure over time, or when the time is right. This reception process is active or passive, and congruent or incongruent, which has implications for whether food waste messages are understood as intended and the behavioural outcomes of the reception process. Developing a more comprehensive understanding of how food waste messages are received, understood and enacted has implications for food waste communications and how hospitality actors can influence the way food waste is thought about and dealt with within their workplace.

1. Introduction

Hospitality employees are central to food waste prevention efforts because they are at the 'forefront of the food waste battlefield' (Goh and Jie, 2019: 126) and are often involved in the design and implementation of food practices and processes in their workplaces (Filimonau et al., 2023). Employee engagement is perceived as the most important strategy to prevent food waste (Vizzoto et al., 2020), yet preventing food waste is not a managerial priority (Filimonau et al., 2019). Even though food waste is perceived by employees as the most important sustainability issue they face (BRITA, 2018), little research addresses how employees can effectively influence their colleagues to address food waste. This research therefore aims to explore how hospitality actors can influence the way food waste is thought about and dealt with within hospitality.

Hospitality food waste in the UK is the equivalent of one in six meals, 75 % of which are avoidable (WRAP, 2013). Of this, 45 % is preparation waste, 21 % is waste due to spoilage, and 34 % is consumer plate waste (WRAP, 2013). This has direct and indirect social, environmental and economic consequences, including food security, greenhouse gas

emissions and soil deterioration (Derqui et al., 2016). Existing literature illustrates how hospitality employees and managers can influence how food waste is perceived and acted upon including through educational strategies and behavioural interventions (Okumus et al., 2020; Zhang et al., 2020). However, these strategies are constrained by a lack of awareness among managers and the engrained habits of consumers and employees (Filimonau et al., 2019) and focuses primarily on consumers (Olavarria-Key et al., 2021), providing limited insights into how to influence food waste prevention within the workplace.

To address this gap, we interviewed 23 UK hospitality actors, including frontline employees, managers and business owners, to understand how they influence, and have been influenced by others, to think about and respond to food waste. In our analysis, we applied a sensemaking lens, as previously used by Visentin et al. (2021) in a hospitality context. We focused particularly on the theoretical insights from sense-receiving and sense-taking (Hoyte et al., 2019; Sims et al., 2009) to understand the processes individuals go through when receiving, interpreting and enacting food waste messages. This highlights how hospitality actors can ensure that food waste messages are received, understood and have the required outcomes. The contributions

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to existing hospitality food waste literature are twofold: firstly, we demonstrate how hospitality actors encourage others to address food waste; secondly, we contribute to sense-receiving literature by demonstrating how the structure of a message influences sense-making.

2. Literature review

Food waste occurs across all stages of the food service cycle (Chawla et al., 2021) and is most commonly defined as uneaten food that was initially intended for consumption (Filimonau et al., 2019). Existing research highlights how food waste is a result of organisational pressures and policies, strict food safety legislation, poor attitudes and awareness, a lack of accountability, resources, skills and expertise, and poor communication (Filimonau et al., 2019; Okumus et al., 2020). Recommended strategies for preventing food waste, both within the kitchen and on consumers' plates, are food waste audits, training, multi-stakeholder collaboration and awareness campaigns (Pinto et al., 2018). Central to all these strategies is communication and employee involvement (Vizzoto et al., 2020). This section reviews extent insights into food waste and communicated.

2.1. Influencing others to prevent food waste

The majority of food waste literature is consumer-focused and seeks to understand how to reduce plate waste through behavioural interventions, like nudging and incentivising (e.g. Huang et al., 2021). Food waste communication is enabled by source credibility, the way the information is framed, where it is placed, and sustainability motives (Chen and Jai, 2018; Zhang et al., 2020). Yet, even if consumer-focused communication is successful in changing behaviours, poor food quality and large portions still impact plate waste, which requires collaboration between front and back of house employees and management (Jagau and Vyrastekova, 2017). However, existing literature suggests there is often poor communication between departments due to different priorities (Okumus et al., 2020). This raises the criticality of improving internal food waste communication and highlights the importance of understanding the perceptions of managers and frontline employees who, despite shared goals, all have different perceptions, challenges and experiences of food waste (Papargyropoulou et al., 2019).

Luu (2020: 1897) argues that employees provide a 'bridging role between organisational and external stakeholders' and are therefore crucial in influencing others to prevent food waste, but employees often lack the necessary skills and awareness to prevent food waste (Charlebois et al., 2015). Therefore, managers should communicate food waste prevention to employees through training to provide the skills needed to notice and prevent food waste (Filimonau et al., 2023). In particular, food waste audits are essential in raising awareness of high food waste areas (Vizzoto et al., 2020), but 'measuring just for its own sake does not make sense to kitchen staff' (Silvennoinen et al., 2019: 101). Therefore, employees should be trained in food waste prevention practices, but also be convinced of their importance. However, food waste prevention practices are often constrained by poor employee attitudes, a lack of accountability and a lack of time and other resources (Charlebois et al., 2015; Chawla et al., 2021). To increase understanding among employees, managers need to ensure they are being examples of good practice and are appealing to social norms, emotions and self-esteem, rather than profitability, because employees are more likely to follow workplace norms and copy behaviours (Goh and Jie, 2019; Ng and Sia, 2023) and subsequently educate and influence consumers to change their behaviour (Miroso et al., 2018).

Whilst the involvement of employees has been highlighted within the literature, little research is from their perspective. The literature suggests that managers should provide employees opportunities to communicate their ideas (Pinto et al., 2018) and that innovative ideas to prevent food waste come from employees who are working directly with food every day (Okumus et al., 2020). However, this assumes that

managers are receptive to employees' ideas and there is not enough research that captures employees' experiences (Vizzoto et al., 2020). In a fast-paced, stressful environment, communication is poor (Charlebois et al., 2015), so food waste messages may not be received by managers or their employees. This leads to difficulties for employees with regards to influencing managers to deal with food waste. Therefore, to address this gap, we apply a sense-making lens, which enables a more comprehensive understanding of how food waste messages are received, understood and enacted by those on the frontline of food waste generation and prevention.

2.2. Theoretical lens

Sense-making is the process in which organisational actors notice something is happening and extract cues that enable them to create a plausible explanation for it (Weick, 1995). Through sensegiving, actors attempt to 'influence the sense-making and meaning construction of others toward a preferred redefinition of organizational reality' through cycles of give and take (Gioia and Chittipeddi, 1991: 442). However, if sensegiving is to be successful, sensegiving messages must first be received and understood by the intended audience.

Concepts of sense-receiving (Hoyte et al., 2019) and sense-taking (Sims et al., 2009) suggest that messages are received and made sense of simultaneously. Hoyte et al. (2019) argue that sense is received through an active and dynamic process of social exchange and feedback, during which the receiving actor receives a message and makes sense of it as intended through interaction with the sense-giver. This enables the sense-giver to know if they have successfully influenced the receiver (Hoyte et al., 2019). However, actors may create their own meanings based on the information they have access to (Sims et al., 2009). This happens when sensegiving messages are vague and absent of information (Bochantin, 2017) or when receivers only extract snippets of information that they feel most connected to (Sims et al., 2009), which means that messages may not be received in their entirety and that sense-making can be very personal. Research demonstrates that receptivity is influenced by the perceived expertise and legitimacy of the sense-giver (Maitlis and Lawrence, 2007), the receivers' emotional state and resonance with the issue (Humphreys et al., 2012), and contextual factors (Peyrefitte et al., 2022).

Similar insights have been drawn from studies about consumer awareness campaigns on food wasting behaviour, which find that source credibility, sustainability values and dining partners effect the success of communication (Chen and Jai, 2018), which demonstrates the relevance of sensegiving to hospitality food waste communication. Moreover, this lens addresses concerns that food waste practices do not make sense to employees (Silvennoinen et al., 2019) as it enables us to develop insights into how messages are interpreted and the influence this has on behaviour. Therefore, the objective of this research is to explore how hospitality actors can influence the way food waste is thought about and dealt with within their workplace.

3. Method

Our research adopts a qualitative and abductive approach due to the in-depth, exploratory nature of this study, which prompted ongoing sense-making of the data (Flick, 2009). Abductive reasoning enabled us to test emerging assertions to build rigorous and reliable theory that was grounded in the data (Guba and Lincoln, 1985). To understand how hospitality actors influence the way food waste is thought about and dealt with within their workplace, we conducted 23 semi-structured interviews with hospitality actors, including frontline employees, managers and business owners, from the UK hospitality industry (see Table 1). Data collection was approved by the University's ethics committee and participants were provided with participant information sheets and consent forms to ensure they understood and consented to take part in the study. Interviews were conducted by video call due to

Table 1
Hospitality actors' respondent profiles.

Interviewee	Years of experience	Job	Type of business	Sustainability focus of organisation
Jane	4	Waiting staff	Independent café	No
Lucy	11	HR manager	Sustainable restaurant chain	Yes
Bethany	3	Assistant manager	Independent café	No
Linda	20	Owner	Independent eco-café	Yes
Sarah	5	Café manager	Independent café	No
Chaz	4	Front of House supervisor	College training restaurant	No
Michelle	26	Catering manager	Entertainment Venue	No
Bertha	32	Cook	National restaurant	No
Yaz	18	Chef	Independent caterer	No
Mike	24	Chef director	National caterer	Yes
Kelsey	20	Assistant manager	Independent pub	No
Lauren	8	Chef-owner	Independent sustainable restaurant	Yes
Tom	12	Chef-owner	Independent sustainable pub	Yes
Alex	11	Chef-owner	Independent sustainable caterer	Yes
Ellie	9	Casual café assistant	Independent café	No
Terry	25	Head chef	National hotel	No
Zahra	< 1	Cake specialist	Restaurant chain	No
Dom	19	Sustainability manager	National restaurant chain	Working towards
Nicolai	27	Owner	Sustainable restaurant chain	Yes
Richard	5	Assistant manager	Independent café	No
Leah	1	Waiting staff	Independent gastro Pub	No
Gem	1	Waiting staff	Independent gastro Pub	No
Ana	10	Food sustainability manager	National caterer	Yes

COVID-restrictions at the start of data collection. To maintain consistency, the same approach was used throughout the data collection. Interviews lasted between 33 and 77 minutes. Online interviews were beneficial in ensuring safety of participants (Oswald et al., 2024) and enabling flexibility in scheduling interviews which enabled participants to reflect on more meaningful experiences (Tomás and Bidet, 2024). Despite potential difficulties in building rapport and responding to non-verbal cues (Tomás and Bidet, 2024), online interviews were well-suited to hospitality actors because it took them outside of a busy kitchen/restaurant, so they were less distracted by other concerns, which was particularly important for low-level employees who worked in businesses who were doing little to prevent food waste. To support this further, participants have been given pseudonyms to ensure confidentiality.

Semi-structured interviews (see appendix for interview schedule) allowed participants to tell their own stories about how they make sense of food waste and how they influence, and are influenced by, others towards a particular sense of food waste prevention. Interviewees were asked to recount stories about how their food waste behaviours had been affected by others. This question provided important insights into when food waste messages are received and made sense of. This provided insights into the methods that hospitality actors use to influence others' sense of food waste. It facilitated articulation of their own experiences of what works well, enabling us to draw conclusions, especially with regards to how employees can influence their managers to address food waste.

Initial sampling was purposive and informed by our early research questions (Byrne, 2004): how hospitality actors make sense of food waste and influence others to prevent it. Interviewees were selected through professional networks based on working within the hospitality sector and having experience of dealing with food waste. The individual's job role and the type and size of hospitality business they worked for also factored as this impacts the receptivity of food waste messages due to organisational culture, communication channels and other factors (Peyrefitte et al., 2022). This diversity allows for variance in the opportunity interviewees have as sensegivers or sensereceivers. For example, organisational leaders, including top management and business owners, are often perceived to be the primary sensegivers (Gioia and Chittipeddi, 1991), which places employees in the role of sensereceiver. We purposively sampled some individuals from sustainability-led businesses due to an expectation of high expertise in food waste prevention, to provide insight into primary sensegivers.

Interestingly, extant research also demonstrates how some organisational actors have the dual role of sensegiver and sensereceiver as they translate the organisational mission within and beyond the organisation (Maitlis and Lawrence, 2007). For example, customer facing employees are being influenced by their managers, but are also influencing their customers about food waste (Luu, 2020; Miroso et al., 2018), and thus people in those roles were also purposively sampled.

Analysis of early interviews raised questions about why sustainability issues, like plastic waste, resonate more than food waste. At this point, sampling and interview questions became theoretically-driven to understand how food waste messages are received (Eisenhardt and Graebner, 2007). In particular, we intentionally sought interviewees who were more likely to be on the receiving end of food waste messages (e.g. low-level employees). We also added additional questions about their receptiveness to others and probed further into their experiences about when they were influenced by others.

The data was analysed abductively as we moved back and forth between data collection, analysis, theory and writing to develop theoretical explanations (Charmaz et al., 2018). Analysis of the data was akin to the sensemaking process as it allowed us to assign meanings to the evidence and make sense of the data based on our own experiences and beliefs and what we notice as important (Earl Rinehart, 2021). As qualitative researchers, we were reflexive in our analysis and cognizant of potential bias, benefiting from an author team that included people from outside the hospitality industry. Our diverse worldviews therefore enabled comprehensive sensemaking of the data due to the extraction of multiple and varied cues (Seidl and Werle, 2018). In line with Earl Rinehart (2021), analysis relied on three conditions: time; prompts; and backwards mapping. We allowed time for familiarising ourselves with the data, reflection and time to engage in different experiences, including new reading around sensemaking and sensegiving concepts. Analytical writing and time spent 'off-task' also gave us the opportunity to 'notice, recognise and respond to prompts' (Earl Rinehart, 2021: 304) and tune in to new cues that would aid sensemaking about the data. Backwards mapping then enabled us to test the plausibility of our interpretations and give credibility to new theoretical insights about the problem (Charmaz et al., 2018).

To understand how actors can influence others to address food waste, our final analysis focused on the types of messages being received, who is involved in sensegiving and sensereceiving, the structure of the message, when sense is received and how it is made sense of. To understand the structure of the messages, we applied Villarino and Font's

(2015) framework of persuasive messaging, which argues that messages are explicit or implicit, active or passive, and denotative or connotative. Explicit messages are those with a clear outcome, active messages provide clear instructions, and denotative messages use language with dictionary meanings that are less likely to be misunderstood (Villarino and Font, 2015). In comparison, implicit messages require receivers to come to their own conclusion, passive messages make statements about what the organisation is doing but do not provide clear instructions, and connotative messages use words that have a more abstract meaning and are therefore open to interpretation (Villarino and Font, 2015). The message structure part of this framework aligns well with sense-receiving/sensetaking as it demonstrates how some messages are more likely to be understood as intended (Hoyte et al., 2019), whilst others may result in ambiguous meaning and individuals making their own sense of the problem (Sims et al., 2009).

4. Findings

The respondents identify five dominant types of messages that are being received by hospitality actors: food needs to be thrown away; food waste can be prevented by taking a particular action; food waste should be prevented by taking a particular action because...; food waste is a problem in the business; and food waste is a problem in society. Table 2 illustrates the actors involved, the key characteristics of each message, when they are received and how they are made sense of. Hospitality actors receive and make sense of these food waste messages in two ways: They receive and make sense of the message immediately, or they are exposed to the message over time and make sense of it when the time is right for them. The findings are structured according to how sense is received and made.

4.1. Receiving sense immediately

4.1.1. Message: food needs to be thrown away

Employees make sense of a food waste message on their own in the moment they receive it. This is evident when an employee receives instructions that they must dispose of an item of food that is still edible but does not meet presentation guidelines due to human error. This message is more common within larger mainstream businesses which restrict employees from taking home leftovers.

'If the cakes are not the same as the demonstration picture, then I'll have to throw away... I understand what [my managers] are saying, but they're just doing their job at the end of the day and I'm just doing my job and I have to listen to them. But I just feel like they don't understand, like it is a bit of a waste of food, like we can still save some food or whatever, like you could even give it to the employees if you want to.' (Zahra)

In this instance, the message that Zahra has received is denotative, meaning the language – in the case of food images – is interpreted based on the agreed definitions of the business: cakes must look like the pictures. The message is also active and explicit because there are clear instructions about what to do: cakes that do not meet the specification must go in the bin. However, whilst messages which are active, explicit and denotative are deemed to be more persuasive (Villarino and Font, 2015), this type of food waste message lacks a sensible explanation for why edible food should be thrown away. Even though Zahra understands the message and what she is being asked to do, she struggles to make sense of the problem in the way that was intended – i.e. poor quality food is poor – and instead creates her own meaning for why she should dispose of food that is edible, reaching the conclusion that she needs to throw food away if she wants to keep her job. In this way, due to a lack of congruence between the message and the food edibility, Zahra makes sense through threat because she makes sense of instructions to throw food away in terms of maintaining job security. Given sense-making is an ongoing process (Weick, 1995), this may result in more careful food preparation and, therefore, less waste in the future because, each time Zahra prepares a cake, she will extract cues based on this experience to ensure fewer imperfections resulting in more food wastage and the potential loss of her job. Immediate reception and individual sensemaking may therefore result in behaviour change the next time the receiver faces the problem.

4.1.2. Message: food waste can be prevented by taking a particular action

In the previous example, Zahra wants to influence her managers to prevent food waste by allowing employees to eat food that is still edible but cannot be sold. However, she is unable to do so because both parties are 'just doing their jobs' and adhering to the instructions given to them by the organisation (e.g. food specifications, job descriptions). This suggests that employees and managers are both making sense of food waste in terms of job security. Sarah, a manager, supports this view when deliberating how she will give sense to her employees about measuring food waste.

'Everything is going to have to be recorded, whether that's perished, damaged and all the rest of it. So, I'm going to have to come up with some sort of spreadsheet to track it all... [because previously] it was very hit and miss as to whether people actually filled [the wastage form] in and a lot of people said "well, it wasn't wasted, I took it home" [but] that's still waste because the money is not going in the till! It will be part of the job role. So, at the end of the day if people aren't willing to do it then they don't want a job.' (Sarah)

In this example, Sarah argues that the best way to influence her employees to prevent food waste is to make measuring food waste a part

Table 2
Types of food waste messages.

Message	Sensegiver → Sensereceiver	Medium of message	Mode of message	Message structure	Reception of message	Making sense of the message
Food needs to be thrown away	Manager → Employee	Instruction	Written Visual	Explicit Active Denotative	Immediate	Individual
Food waste can be prevented by taking a particular action	Manager → Employee Employee → Manager Employee → Employee	Training Staff meetings Conversation	Verbal	Explicit Active Denotative	Immediate	Individual Collective
Food waste should be prevented by taking a particular action because...	Manager → Employee Employee → Manager Employee → Employee	Training Staff meetings Conversation	Verbal	Explicit Active Denotative	Immediate	Individual Collective
Food waste is a problem in the business	Manager → Employee Employee → Manager Employee → Employee	Conversation	Verbal	Implicit Passive Connotative	Exposure over time	Collective
Food waste is a problem in society	Food → Employee/ manager External actors → Employee/manager	Food waste bin Events	Visual Verbal	Implicit Passive Connotative	Exposure over time	Individual

of their job description. Her sensegiving is therefore congruent with how employees, like Zahra, make sense of food waste within their workplace, which suggests that her message is more likely to be received. Like Zahra's instructions to throw food away, this prevention message is explicit, active and denotative in that it provides active instructions (fill out this form) using denotative language (Sarah considers how best to design the form so that it cannot be misinterpreted) with an explicit outcome (keep your job). However, whilst the message outcome is explicit, it is not in line with the overall goal of measuring food waste, which is to enable targeted reduction of food waste (Derqui et al., 2016), and employees therefore make sense of food waste practices under threat.

4.1.3. Message: food waste should be prevented by taking a particular action because...

For managers to effectively influence their employees to prevent food waste, the explicit outcome of a food waste prevention message should be a change in food waste prevention attitudes and behaviour. To achieve this, messages should convince employees to reduce food waste by providing clear explanations about why preventing food waste is important. This is evident within training, particularly within sustainability-led businesses.

'We offer training to all the waiters. If there is food left on a plate, [waiters] offer [customers] doggy boxes that [customers] can put their food to take home... Throughout their training, there are lots of tests – Why we do certain practices and procedures, why we provide doggy boxes? There are steps to pretty much every stage that talks about one of the reasons we do this is because of sustainability aspects. Like making sure they know where the recycling is, like having bins labelled so everyone knows that that's the procedure, which is probably one of the hardest things to manage in the restaurant because you're always finding plastic in the food waste.' (Lucy)

To convince individuals to change their food waste prevention behaviour, Lucy provides comprehensive induction training to new employees which is active (e.g. ask customers if they would like to take home their leftovers) and denotative (e.g. clear labels on the bins that everyone understands), but which also provides explanations for why food waste practices exist. In the doggy box example, there is an explicit focus on reducing plate waste, which has a domino effect as managers influence their employees who in turn influence their customers. However, this process implies that the meaning of the original message may be changed and diluted over time and, therefore, not received as intended or the outcome known. To ensure that onward sensegiving is received as intended, employees must first make sense in the way that was intended. For example, in Lucy's workplace, training includes tests, which enable receivers to demonstrate what they have learnt. This gives the sensegiver the opportunity to clarify any misunderstandings and adapt future communication, which ensures that sense is received as intended and results in the required behaviour change. However, as Lucy demonstrates, some practices – such as correct waste separation – are difficult to manage. Insights from employees at mainstream businesses suggest that employees also need to feel connected to the issue if they are to be influenced towards food waste prevention.

'going back to food waste, it's quite easy to put something in the bin and just completely forget about it, there's no other impacts of that. But I think by explaining to me the long-term impacts of where that goes after, I'll feel more responsible over it and then that will get me to change my behaviour' (Richard)

'if they are trying to convince me and they make good points and what they're saying makes sense to me, then that tends to be a lot easier' (Leah)

Whilst Richard highlights the importance of demonstrating what happens to food waste so that he will feel more connected to the issue, Leah's quote indicates how sensemaking is deeply personal, which

means that even with a clear explanation, a receiver may only extract the information that resonates with them and therefore create their own meanings (e.g. Sims et al., 2009). Therefore, for a manager to effectively influence employees requires an understanding of what resonates with their employees so that food waste messaging is congruent with their attitudes, values and experiences.

4.2. Receiving sense due to exposure over time

4.2.1. Message: food waste is a problem in the business

Managers and employees give sense to each other that food waste is a problem within the business, which leads to a conversation between the two parties as they collectively make sense of where food waste occurs and whether they can reduce it. This occurs informally within the kitchen.

'The manager's had a conversation with kitchen staff about food waste and sometimes he is like "too much is being thrown away", and I say, "[we] don't have a choice if it doesn't sell." We try to find a way to. They can only control so much.' (Bertha)

In comparison to the previous messages, messages that food waste is a problem in the business are passive, implicit and connotative because they do not provide clear instructions and do not have an explicit outcome, whilst the language used is open to interpretation based on personal attitudes to food waste and the constraints of the business. As a result, reception of these messages may result in non-sensemaking (Alvesson and Jonsson, 2022). For example, Bertha's manager tries to influence the kitchen employees to reduce food waste but argues that she is already doing all she can. Her response shows her manager that his message has been received, but that she disagrees and does not make sense of the problem in the same way as her manager. This could create the opportunity for collective sensemaking between Bertha and her manager as they attempt to understand the problem together. Their direct interaction facilitates instant reception of food waste messages because conversations enable the receiver to seek clarification and illustrate their understanding, as well as impart their own ideas about food waste. Through this, employees and managers can negotiate a shared understanding of food waste over time. However, this is likely to be a process of non-sensemaking because the potential outcomes are meaningless as they occur within the limits of the organisations' policies, which impact the actions that can be taken.

4.2.2. Message: food waste is a problem in society

Hospitality actors are exposed to some food waste messages over time. The message that food waste is a problem in society may not be noticed or made sense of immediately, but for most interviewees, working in the food industry has influenced their perceptions of food waste over time and the degree to which they notice it within the business.

'I have worked for [supermarket chain] and I know what food waste they get and I used to think it was terrible, and I think seeing it with your own eyes to that degree, that influenced me more than anybody else has in the world.' (Sarah)

As these messages are communicated by food waste itself, they are implicit, passive and connotative, and therefore require receivers to make sense of ambiguous and abstract cues without any direction about how to do this. However, as receivers extract more cues, the accumulation of these messages leads them to understand food waste as a problem in society which needs to be addressed. Interviewees describe a moment of awakening, where they can make sense of the food waste cues because they receive a message in a way that is relevant to them. This is particularly evident among sustainability-led business owners.

'I went to see a presentation that [Rene Redzepi from Noma] did in Covent Garden. I went there and just the way that he was talking about the

product, and the waste, and his connection to the farm, the land, and the way that he uses his vegetables, and all this stuff, it just really hit home with me... He just said something that resonated with me and it just started me on a path that I've never really turned back from. (Mike)

The epiphanous message that Mike received could still be classified in a similar way to previous messages because Rene Redzepi¹ provides an atypical definition of food waste (connotative) and explains how he manages food waste (passive) with the outcome of the presentation being for receivers to come to their own conclusions (implicit) about how these experiences can be applied to their businesses. However, the language used was congruent with Mike's own values and experiences, which enabled him to make sense of the problem because it fit into his ongoing stream of experience (Sims et al., 2009). Moreover, Mike perceives Rene Redzepi to be an expert in hospitality food waste, so the credibility of the sensegiver might also be important (Maitlis and Lawrence, 2007) in enabling an individual to move from receiving a message to making sense of it.

Managers take on this role as an expert when influencing their employees to think about and prevent food waste. This creates a domino effect among employees within a business and as they move between jobs.

'So I worked for [chef] for quite a few years... And, then when I went to one of the first hotels, I worked for a guy and we'd both worked together for [chef] before so we had that same kind of philosophy, and then when I branched off and I went to work in a different hotel, so I was there for a good 10 years, it was already part of my DNA then.' (Terry)

Terry explains how his philosophy of food – and within this his sense of food waste – was influenced by one of the chefs he worked for. In turn, when Terry trains new chefs, he influences them to treat food in the same way. In this way, hospitality actors expand their sphere of influence and the chain of receiving and giving sense results in renewed sensemaking about food waste throughout the hospitality industry.

However, based on their personal experiences, these actors recognise that influencing others towards food waste prevention takes time and that the messages they send might not be received instantly:

'I think you have to be what you are and, the message be there to be heard, and then hopefully at some point the message will get through' (Linda)

Linda demonstrates how she influences others by staying true to her ideals, rather than forcing her sense of food waste and sustainability onto others through direct messaging. In this way, communication is implicit and passive because the intention is to get the receiving actors thinking about the problem and making sense of it in their own time based on the information that resonates with them. Moreover, when actors are exposed to food waste messages over time, it is difficult to identify whether a message has been successful because a receiver will extract multiple sensemaking cues from different people and the environment as they make sense of different issues (Christianson and Barton, 2021). Due to the accumulation of cues from diverse sources, individuals can only make sense of the message in their own way. However, congruence in messaging is key and, therefore, sensegivers could intentionally trigger and guide sensemaking by designing messages that will resonate with their intended audience.

4.3. Creating the right time for sensereceiving

The data suggests that food waste messages will likely be received and made sense of when the time is right. Managers and employees

therefore need to take this into consideration when attempting to influence each other to think about and deal with food waste in a particular way. To achieve this, they need to understand what makes someone more receptive to making sense of a message.

'I try to listen to the manager the most because people can have different opinions, and that's probably the most important person to listen to. I respect their view because they've been working in the industry for a long time, and they've got the most experience... If they're quite an approachable person and they're quite friendly, then I can gauge whether they'll respond positively to my ideas. [It's important to] be quite encouraging and positive about [listening to others' ideas], because sometimes it's difficult, like it might take a bit of persuasion on your part to share your ideas.' (Ellie)

Employees suggest that giving and receiving food waste messages is affected by the respect they have for their managers. The data highlights how everybody has different ideas about how things should be done. Whilst this could lead to difficulties in making sense of who to listen to, Ellie argues that she is more likely to listen to her manager, rather than her colleagues, because she trusts her expertise. However, managers need to communicate in a way that highlights the benefits of taking a particular action and be open to an exchange of ideas. If a manager is not deemed to be approachable, then an employee will not feel confident raising their ideas for preventing food waste. Moreover, managers require empathy when engaging employees in collective sensemaking, whilst employees are restricted by their confidence levels when attempting to influence their managers towards a particular sense of food waste.

Making sense of a message depends on its relevance to the receiver. Congruence is important in how stakeholders make sense of issues of social responsibility (De Jong and van der Meert, 2017). As shown in the immediate reception of messages, making sense of food waste messages is embedded in the relationship that employees have with their job. Sensemaking is dependent on internal consistency between food waste messages, job descriptions and company policies. Employees need to understand how a food waste practice will make their jobs easier. This is the same for managers:

'You can't press a specific issue on [a business], unless they're being pushed on by [NGOs and consumers]. So, a lot of it is just meeting them wherever they are, at that exact moment and trying to give them as much education as you possibly can and trying to create some impact while it's still of interest to them because, once that emergency has passed, they're not interested anymore. But food waste seems to be sexy...There is no making anyone, any business, care about an issue until for some reason it is relevant to them.' (Ana)

Ana provides consultancy services to food businesses, she discusses the struggles of influencing businesses to be more sustainable. Her experiences demonstrate how managers receive sensemaking cues about sustainability issues from external stakeholders, which determine where they focus their attention. For example, data collection happened during the COVID-19 pandemic, which 'shifted mindsets' (Ana) and led to an increased 'appreciation of food' (Michelle, Yaz). This shows how the ability to receive and make sense of food waste messages may be influenced by what is happening in the broader context and the direct impact of those events on the receiver (Visentin et al., 2021). Congruence in messaging therefore also needs to have external consistency between activities and customer demands (Yuan et al., 2011) because external events affect receptiveness and what the audience pays attention to (Sims et al., 2009). Ana suggests that businesses are currently more attuned to food waste and, therefore, hospitality managers are more likely to be receptive to food waste messages than in the past. This implies that it is currently the right time for managers and their employees to engage each other in food waste prevention. The idea that there is a right time for sensereceiving gives valence to the importance of the stages of change (Prochaska and Norcross, 2001) in understanding

¹ Rene Redzepi is chef and co-owner of Noma in Denmark and is known for his innovative approaches to cooking and perceived as an expert in modern fermentation techniques, which he uses as a means of managing seasonal and foraged ingredients and ensuring a supply of ingredients all year round.

communication and sensemaking. Stages of change theory suggests that behaviour change take place over time as individuals move from pre-contemplation, in which they lack awareness of a problem, to contemplation about how to address the problem, to making preparations to address the problem, to action and overt behaviour change, which then undergoes maintenance to prevent relapse into old habits, and finally termination and completion of the change (Prochaska and Norcross, 2001). When the time is right, precontemplation is elongated, and individuals only move through contemplation and preparation to the action stage as a result of a particular trigger.

5. Discussion

This paper sought to explore how hospitality actors can influence the way food waste is thought about and dealt with within their workplace. Our findings show how and when hospitality actors make sense of food waste messages. We argue that messages can be received instantly, or through exposure over time, or when the time is right. Some messages are received actively (e.g. through training) or passively (e.g. through exposure over time). These findings attune with Villarino and Font's (2015) sustainability message structure which suggests that messages can be active or passive. Similarly, Filimonau et al. (2020) argue that

individuals can be influenced to prevent food waste through active and passive nudging. We build on these insights by highlighting that the reception of sensegiving attempts can also occur actively or passively. This has congruence with insights from sense-receiving and sense-taking literature, which highlight how organisational actors are influenced by others towards a particular sense of reality (Hoyte et al., 2019; Sims et al., 2009). These insights demonstrate how hospitality actors can influence the way food waste is thought about and dealt with within their workplace through more effective communication that elicits understanding and action.

Existing sense-receiving and sense-taking literature, however, provides conflicting perspectives about how sense is received, suggesting that actors make sense of messages about vital organisational issues as intended or by creating their own meaning about the problem (e.g. Hoyte et al., 2019; Sims et al., 2009). Our findings contribute to this debate by delving more deeply into the process by which these outcomes emerge, which we synthesise into a model that depicts the process of receiving food waste messages (Fig. 1). By applying insights of sense-receiving and sense-taking, we see how active or passive reception effects how and when a message is interpreted and enacted, and whether an actor is successfully influenced by others. Through this study we demonstrate that employee engagement is a crucial, but overlooked,

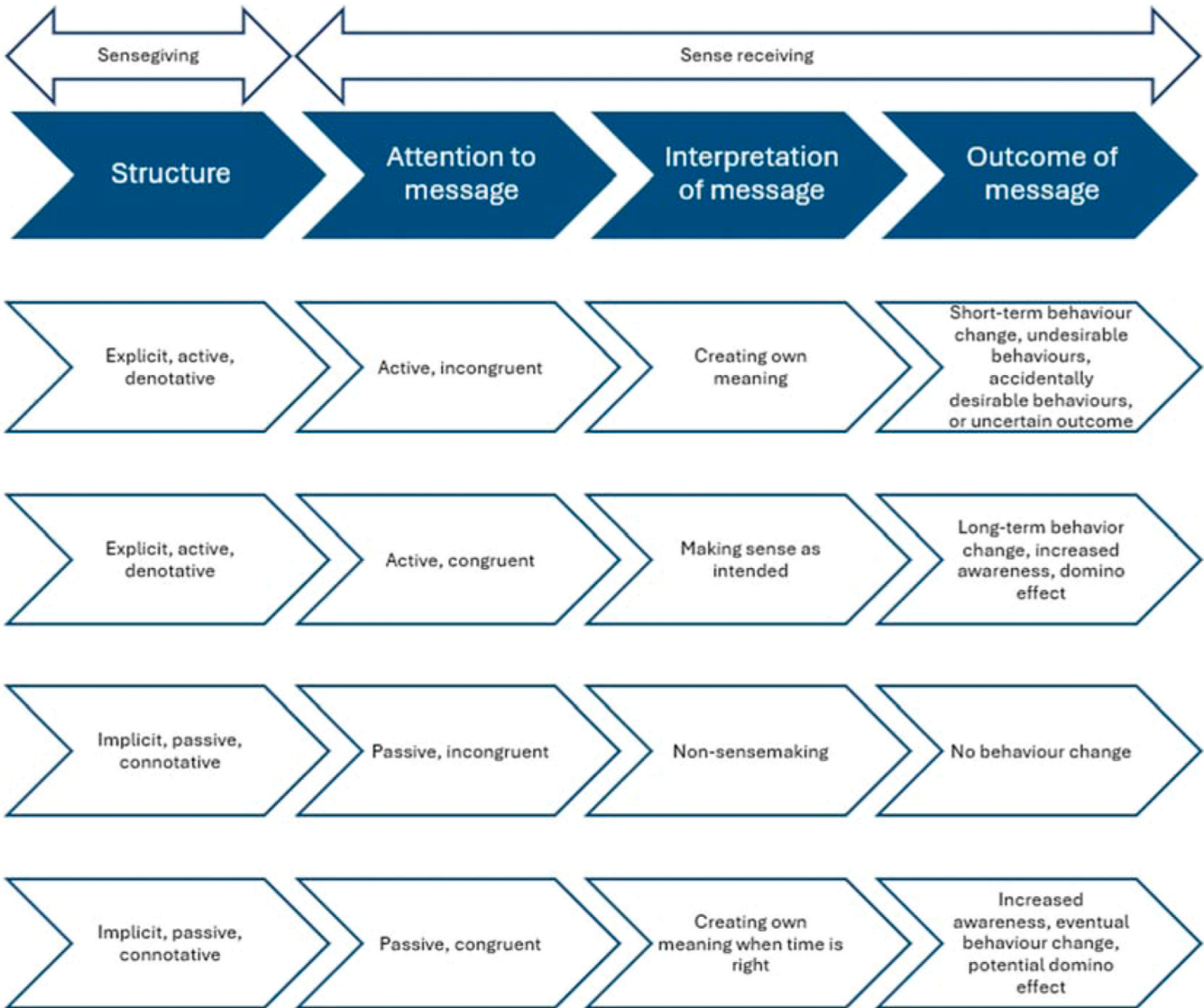


Fig. 1. Reception of food waste messages.

strategy to prevent food waste, as per Vizzoto et al.'s (2020) suggestion. By focusing on the reception of food waste messages, we demonstrate how hospitality actors can influence each other to prevent food waste by ensuring that they are communicating in the right way, at the right time, to enhance meaning and action.

5.1. Active and incongruent reception

Immediate reception of food waste messages is active and incongruent when a message is explicit, active and denotative. Messages structured in this way provide clear instructions about what to do and the intended outcome (Villarino and Font, 2015), such as 'throw food in the bin'. This message is not congruent, however, because the food is still edible. This means that individuals create their own meanings based on the available information and what they notice as important (Bochantin, 2017), which influences the actions they take. Actions may be uncertain due to the individuality of meaning creation. Alternatively, a message may result in undesirable behaviours, like throwing edible food away for fear of losing their job. This scenario is likely to occur because receptivity and sensemaking is influenced by the legitimacy of the source (Maitlis and Lawrence, 2007). Sensemaking is therefore based on threat as employees extract meaning based on what it means to them if they do not act in a certain way. Whilst removing the threat might result in alternative behaviours (e.g. giving leftovers to employees) as the proposed action is no longer being maintained (Prochaska and Norcross, 2001), active reception of these incongruent messages may accidentally result in desirable behaviours as employees push back against what they are being asked to do and prompt collective sensemaking about food waste.

5.2. Active and congruent reception

Hospitality actors actively receive food waste messages during training and on-the-job conversations, where they are attuned to what is going on, which suggests that it is the right time to communicate about food waste. These active situations allow the actors to gauge the receptivity of their audience and how to best communicate with them, ensuring congruence of messaging. To ensure food waste messages are attended to immediately, the message structure must also be explicit, active and denotative. However, whilst it is important that these messages provide clear instructions and outcomes (Villarino and Font, 2015), these messages need to provide explanations for proposed actions. For example, when being trained in a new practice, an employee needs to understand why a new practice, that may disrupt their current routine, is important. Given a key challenge to food waste is existing habits (Filimonau et al., 2021), this enables a message to be interpreted as intended, which results in increased awareness of the problem and appropriate behaviour change. Moreover, this sensegiving influences the desired culture and mindset within the organisation, which enables long-term behaviour change and offers the potential for a domino effect where the receiver attempts to influence others within their own network because they have received the skills and a clear sense of identity and purpose to influence others.

5.3. Passive and incongruent reception

In comparison to messages that are received actively, messages that are received passively have a structure that is implicit, passive and connotative. These messages are received due to exposure over time and are open to interpretation due to the lack of clear instructions and use of abstract language (Villarino and Font, 2015). This results in employees creating their own meanings, but the outcome of their sensemaking is meaningless unless they are able to enact solutions. For example, employees may identify ways to prevent food waste but their behaviours do not change because their interpretation of a message is incongruent with organisational policies. However, whilst organisational constraints have

the potential to trap employees in cycles of nonsensical behaviours (Alvesson and Jonsson, 2022), passive and incongruent reception may result in increased awareness over time as hospitality actors are exposed to food waste cues, which aids sensemaking when they receive a message that is congruent.

5.4. Passive and congruent reception

Hospitality actors are surrounded by multiple food waste messages which they receive passively through exposure. This includes messages like food waste is a problem within the business or society that make implicit statements or illustrations about the extent of food waste or provide passive information about what other businesses are doing. These messages provide cues which lie dormant until a particular message resonates with an individual and acts as a catalyst to making sense of the information that they have been exposed to from multiple sources. In this instance, hospitality actors create their own meaning when the time is right, i.e. when a message is congruent with their ongoing experience. Stages of change theory suggests that behaviour change takes place over time as individuals move from precontemplation of an issue to contemplation, preparation, action, maintenance and termination (Prochaska and Norcross, 2001). Crucial to moving between each stage is readiness for change (Prochaska and Norcross, 2001). Passive exposure to food waste cues during precontemplation helps prepare an individual for the change process, therefore ensuring that they are ready to change when they receive a message that resonates. Therefore, the right time prompts an individual to move efficiently from pre-contemplation, during which they'd been passively exposed to cues, to increased awareness as they actively contemplate the food waste problem, to eventual behaviour change as they prepare and act. When reception is congruent, sensemaking occurs through a process of acculturation which means, if done effectively, messages have a longer-term effect in terms of behaviour change and a potential domino effect as the receiver influences others within their workplace and/or wider network. However, exposure over time may only contribute to behaviour change that is in line with the receiver's own interpretations of the cues they received over time. This suggests that the use of implicit, passive and connotative messages is more appropriate when the intention is to encourage others to think about food waste and take action that is suitable for them as an individual.

6. Theoretical contributions

In this paper, we present evidence of how food waste messages can be received instantly, or due to exposure over time, or when the time is right. How and when a food waste message is received and interpreted impacts the extent of behaviour change. These insights provide valuable contributions to the hospitality food waste literature with regards to engaging hospitality actors in food waste prevention. Vizzoto et al. (2020) highlights that employee engagement is perceived by practitioners as vital in preventing food waste, yet existing literature pays limited attention to employees' experiences and suggests that managers do not prioritise food waste prevention (Filimonau et al., 2019). By considering frontline employees' perspectives alongside those of their managers, we demonstrate how employees can influence their managers to take food waste more seriously. Moreover, we highlight that employees need to understand why they are being told to do something (Silvennoinen et al., 2019). By applying a sensemaking lens, we demonstrate how hospitality actors can engage others in food waste prevention through food waste communication that elicits understanding and action.

In addition, we contribute to sense-receiving/taking where extant literature argues that the reception of sensegiving results in either the receiver making sense as intended (Hoyte et al., 2019) or creating their own meaning based on the cues that they extract (Bochantin, 2017). We argue that both occur, depending on the structure of the message. By

applying Villarino and Font's (2015) message structure, we highlight how the structure of a message influences whether a message is received and made sense of immediately, or due to exposure over time, or when the time is right, and the resulting outcome on behaviour change. This has implications for how organisational actors can ensure that sense-giving attempts have the desired outcome.

6.1. Practical contributions

These insights have practical implications. Firstly, we recommend that managers create open forums that enable employees to share feedback and ideas about food waste prevention. These could include regular meetings with employees and feedback surveys, which are responded to on a regular basis summarising the content of feedback and ideas and the actions taken. This would show employees that their managers are receptive to their ideas, so that they will be more confident taking part in the process. Secondly, food waste prevention should be an explicit part of training, including ordering, menu design, food storage, preparing, cooking, serving, and disposal of food. For example, food waste training could be encompassed within customer service training by using scenarios where an employee offers a customer guidance on portion sizes or offers a takeaway box if they have leftovers. In this way, employees develop the appropriate skills to understand their audience and communicate more effectively. However, it is important that food waste training takes employees on a journey through the process of how and why management made particular decisions about food waste prevention, so they understand why it is important.

6.2. Limitations and future research

Despite the theoretical and practical contributions of this study, there are limitations. Data collection focused on a wide range of hospitality actors who demonstrated their own experiences of being influenced by others and how they use their experiences when assessing how food waste messages will be received by others. While each individual was able to provide examples of how they have influenced others and are influenced by others, taking a dyadic approach would be useful to explore how food waste communication manifests between actors within the workplace, and what constrains it. Moreover, the majority of the sample were women. Whilst the sample was reflective of the industry, in that more women are in waiting positions and more men are in managerial or ownership positions (Silva and Couto, 2023), this suggests that sensegivers are more likely to be male, and sense receivers are more likely to be female. Future research could therefore explore the role of gender in influencing others to prevent hospitality food waste. This paper also relied on online video interviews due to COVID restrictions during data collection. Further research, which draws on face-to-face interviews and observations, may provide additional insights. Common with qualitative approaches, data is not generalisable and is subject to researcher bias. Whilst issues of bias were managed through reflexivity and a diverse research team, and the study proposes transferrable insights, testing these insights through a quantitative study could further address these concerns. Finally, this paper highlights the role of timing on whether food waste messages are received. These conclusions are drawn from individuals' personal accounts and could be further explored using a longitudinal approach to understand how and when food waste messages are received and made sense of over time.

CRediT authorship contribution statement

Iain Davies: Writing – review & editing, Writing – original draft, Visualization, Supervision, Project administration, Investigation, Conceptualization. **Peter Nuttall:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Methodology, Formal analysis, Conceptualization. **Natalie Pearson:** Writing – review & editing, Writing – original draft, Visualization, Project administration,

Methodology, Investigation, Formal analysis, Conceptualization. **Baris Yalabik:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

Declaration of Competing Interest

None.

Appendices

Interview schedule

- 1) What does food waste mean to you?
- 2) Please tell me about a time when food was wasted.
- 3) Please tell me about a time when you prevented food waste.
- 4) Please tell me about what the organisation is doing to prevent food waste.
- 5) What are the organisation's priorities and how does food waste fit within these?
- 6) How are food waste practices and policies communicated to you? / How do you communicate about food waste to other people?
- 7) Do you feel able to influence the food waste prevention behaviour of others?
- 8) In what ways do others influence you?
- 9) Any final thoughts?

Data availability

Data will be made available on request.

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