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Embracing Food Well-Being: Lessons from Chefs' Caring Actions in the Fight Against Food Waste

Marta Pizzetti , Cristina Longo , and Meltem Türe 

Abstract

This research analyzes world-renowned chefs' fight against food waste as a manifestation of care, and aims to contribute to the understanding of food well-being (FWB). A qualitative study was conducted to analyze a large set of data triangulated from multiple sources (online streaming platforms, books, newspapers, magazines, websites, and social media channels). The findings reveal that, in proclaiming their responsibility to act against food waste, chefs challenge a wasteful food culture by weaving a web of care targeted at both supporting and training consumers and other stakeholders in the food supply chain. In doing so, the chefs leverage their position in society and within the food supply chain to connect multiple stakeholders in order to form a mutually beneficial and positive relationship with food. The results contribute to the conceptualization of FWB by highlighting the relational and dynamic nature of care in the FWB model. The study has policy implications for fighting food waste and enhancing FWB.

Keywords

food well-being, food waste, care, food supply chain

Food waste refers to discarded food that is still fit for human consumption. Food waste impacts individuals and society; it elicits negative emotions and creates a moral burden for food supply-chain stakeholders (Gruber, Holweg, and Teller 2016). At the societal level, food waste threatens sustainability (Block et al. 2011), incurs economic loss (Food and Agriculture Organization 2014), impedes access to food (Bublitz et al. 2019; Gruber, Holweg, and Teller 2016), disempowers small and local producers (Maglaras, Bourlakis, and Fotopoulos 2015), and challenges policy makers (Gruber, Holweg, and Teller 2016), retailers (Parker, Umashankar, and Schleicher 2019), and marketers to provide solutions (Scott and Vallen 2019). Thus, devising plans to fight food waste should be at center stage when advancing a positive relationship with food, as conceptualized by the food well-being (FWB) model (Block et al. 2011).

This research sheds light on the relationship between food waste, FWB, and caring by focusing on less investigated stakeholders, specifically world-renowned chefs, and their caring actions in tackling food waste. It addresses the following research questions: What role does care play in the conceptualization and pursuit of FWB? Specifically, how do celebrity chefs' caring actions against food waste relate to FWB? The findings reveal that chefs are aware of, and feel a responsibility

toward, reducing food waste, which unfolds as the enactment of care. Celebrity chefs engage in multiple caring actions aimed at helping the actors in the food supply chain (suppliers, consumers, institutions, and retailers) become more autonomous in dealing with food in a less wasteful way. This research contributes to the FWB literature by delineating the central role of care in the pursuit of FWB. Care, defined as "everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible" (Tronto 2013, p. 19), is intrinsically connected to the pursuit of FWB, and can help remove impediments to its achievement. While implicit in some studies (Bublitz et al. 2019; Mendini, Pizzetti, and Peter 2019; Voola et al. 2018), care has not been unpacked in the FWB literature. Our study conceives food waste as a deficit of care that merits further research. Thus, in line with recent studies that have highlighted food waste as paramount for studying food (Mesiranta, Näränen, and Mattila 2022) and FWB (Bolton and Reczek

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2022), we argue that food waste is a relevant domain to study the manifestation of the caring actions of different stakeholders in enhancing FWB.

Understanding the links between FWB and caring sheds light on how food waste can be tackled, and FWB enhanced, via a “web of care,” a term we introduce to refer to the dynamic and relational nature of caring actions that chefs undertake in different loci and with different stakeholders. This research provides valuable insights for policy makers into how to tackle societal issues by inspiring stakeholders’ caring actions, so as to orchestrate creative and engaging experiences, rather than imposing normative standards or sanctions on them.

Food Waste: A Threat to the Advancement of Food Well-Being

Food waste is a complex phenomenon that occurs at all levels of the food supply chain (Block et al. 2016; Mesiranta, Närvänen, and Mattila 2022) and is nurtured by the complex systems of production, distribution, and consumption of food. Food waste may have important implications for the development of FWB (Bolton and Reczek 2022; Scott and Vallen 2019), conceptualized as “a positive psychological, physical, emotional, and social relationship with food at both the individual and societal levels” (Block et al. 2011, p. 6).

The FWB model encompasses five dimensions: food availability, food socialization, food literacy, food marketing, and food policy, all of which are jeopardized by food waste.

As regards the dimension of *food availability* (i.e., the production, distribution, and availability of food), food gets wasted early in the supply chain due to unfavorable weather conditions, damage caused by animals, or inefficient organization by farmers (Block et al. 2016). In distribution, retailers often exclude from the market food that does not meet certain standards of quantity, quality, and aesthetics (Cooremans and Geuens 2019; Gruber, Holweg, and Teller 2016). Consumers further contribute to food waste by hoarding or overbuying food (Porpino, Parente, and Wansink 2015). Enhancing FWB would require the effective management of food availability, such as making available better and healthier food options for all consumers, while simultaneously preventing food waste. Local stakeholders may be paramount in facilitating food access and communal well-being, because they care deeply for their communities (Bublitz et al. 2019).

Food waste and its acceptability can be significantly shaped by the dimension of *food socialization* (i.e., the sociocultural dimension of food consumption). For instance, in some cultures, an abundance of food denotes generosity, wealth, and power, while consuming leftovers may be considered socially embarrassing (Parker, Umashankar, and Schleicher 2019; Porpino, Parente, and Wansink 2015). Food socialization implies that FWB can be enhanced, and food waste may be avoided, when consumers are socialized to recognize the value of food, and adopt less wasteful food choices and eating habits.

The level of *food literacy* (i.e., knowledge of food, and a willingness to apply such knowledge to food choices and preparation) and the amount of food waste are inversely related. A higher level of food literacy enhances consumers’ ability to interpret expiry dates (Gruber, Holweg, and Teller 2016) and their motivation to apply culinary skills to the processing and storing of food (Jörissen, Priefer, and Bräutigam 2015), thereby decreasing the volume of food waste. Food literacy can be improved by education on how to make proper food choices, and how to prepare and preserve food (Block et al. 2011).

Food marketing (i.e., marketing strategies regarding food offerings in the marketplace) affects food waste through packaging, labels, communications, price, and sales promotions (Block et al. 2011; Jörissen, Priefer, and Bräutigam 2015). Consumers may challenge food marketing tactics by adopting alternative practices of acquiring and consuming food, such as “dumpster diving” (Gollnhofer 2017). However, food marketing can be also used to stimulate a positive relationship with food by diffusing food trends, supporting consumer movements, and creating ad hoc campaigns to minimize food waste (Block et al. 2011; Cooremans and Geuens 2019).

Finally, *food policy* refers to various interrelated rules and regulations that order and guide the food industry and food consumption (Block et al. 2011; Bolton and Reczek 2022). Food policies can help extend the life of food that would otherwise be wasted through composting and recycling regulations (Block et al. 2016; Brosius, Fernandez, and Cherrier 2013), or policies aimed at sensitizing and educating consumers against food waste (Gruber, Holweg, and Teller 2016; Thompson and Haigh 2017), such as the “Think. Eat. Save” campaign that targets a range of stakeholders to raise awareness about food waste (UN Environment 2013).

The literature highlights the importance of different stakeholders and their interconnection in dealing with food waste and reconfiguring the market toward sustainability (Bublitz et al. 2019; Mesiranta, Närvänen, and Mattila 2022; Welch, Swaffield, and Evans 2021). Whereas some research has focused on nonprofit organizations, we shift the focus onto world-renowned chefs, as they are important stakeholders at the center of the food industry with the knowledge, expertise, and visibility to trigger positive transformations in both the market and society in the pursuit of FWB. The next section introduces caring as a theoretical lens to analyze chefs’ actions in fighting food waste, thereby contributing to our understanding of FWB.

Care: A Lens to Investigate Food Well-Being

The concept of care emerged and was conceptualized in disciplines such as philosophy, psychology, gender studies, and nursing (Engster 2005; Shaw et al. 2017; Tronto 2013). Care refers to the attentive interest, concern, and actions meant to achieve well-being (Shaw et al. 2017) and is considered a primary pillar of the formation of societies where individuals are attentive to themselves and to others, feeling the

responsibility to act on societal issues (Engster 2005; Shaw, McMaster, and Newholm 2016; Tronto 2013).

According to Tronto (2013), caring is processual in nature, and unfolds in a series of phases. *Caring about* is the first phase, in which the potential caregiver shows the ethical quality of attentiveness by being aware of caring deficits, and by understanding the nature of the caring needs and of the problem to be cared about (Parsons et al. 2021; Shaw et al. 2017; Tronto 2013). *Caring for* is the second phase, intertwined with a sense of responsibility to meet the identified deficits and needs (Held 2006; Tronto 2013). The next phase is *caregiving*, where caring is actualized through moral and technical competences and the skills of caregivers to benefit the care recipients (Parsons et al. 2021; Tronto 2013). Thus, care is fundamental for individual and societal well-being and is a crucial component in establishing and shaping relationships among stakeholders (Held 2006; Parsons et al. 2021; Shaw et al. 2017; Tronto 2013).

The dynamic and relational nature of caring (Shaw, McMaster, and Newholm 2016; Shaw et al. 2017) manifests itself on multiple levels and scales (Chatzidakis and Shaw 2018; Kastarinen, Närvänen, and Valtonen 2022; Milligan and Wiles 2010). Caregivers and care receivers, who can be temporally or spatially proximate or distant, are involved in the coproduction of care (Kastarinen, Närvänen, and Valtonen 2022; Parsons et al. 2021). In particular, Chatzidakis and Shaw (2018) suggest that the enactment of care occurs beyond a singular context, acting at multiple levels and scalar logics. Caring has, thus, a multilayered and multitemporal nature (Kastarinen, Närvänen, and Valtonen 2022). In this study, we expand on this view and use the web of care to conceptualize the caring actions of chefs to tackle a societal, environmental, and managerial issue such as food waste. The web of care helps capture the different loci and multiple stakeholders involved in chefs' fight against food waste, as well as the power dynamics surrounding chefs' caring actions.

Only a few studies on food consumption and FWB have mentioned care (Batat 2020; Block et al. 2011; Bublitz et al. 2019; Mendini, Pizzetti, and Peter 2019; Scott and Vallen 2019). With the exception of Parsons et al. (2021), these studies do not directly explore the role that care might play in advancing FWB. In the conceptualizations of the FWB model, from the original version by Block et al. (2011) and subsequent adaptations, there is no direct indication of care, nor of caring, in shaping FWB's dimensions and objectives. Bublitz et al. (2019) consider care a precondition to mobilizing local stakeholders to support activities facilitating food availability. Voola et al. (2018), analyzing food consumption in poverty, present care in direct relation with the policy domain, as a warning for food policy makers to consider the effects of their policies on women's opportunities to juggle work, leisure, and family care. The link between care and FWB has, to the best of our knowledge, been explicitly highlighted only by Parsons et al. (2021) in applying an ethics of a care lens to the literature on transformative service research to reveal how caring relations contribute to the pursuit of FWB.

Due to its complex, relational, multilayered, multitemporal, and multispatial nature, care may provide a useful perspective from which to explore the fight against food waste and FWB. The literature implies that increased care in relation to food and food waste could help reduce the latter (Revilla and Salet 2018; Thompson and Haigh 2017). Research finds that celebrity chefs have become important stakeholders in this process, as they can help shape food culture, consumption, and policies. These chefs' media presence and highly public positions allow them to address ethical dimensions and sustainability in food consumption and production (Phillipov and Gale 2020). Celebrity chefs are found to "inspire" people who regard them as serving a greater purpose relating to food (Ulver and Klasson 2018). Overall, there is a growing expectation for chefs to use their position to care for, and take the initiative in, fighting food waste. To illustrate one of the many declarations of chefs' care for food and their increasing commitment not to waste food that we came across, in an article on the website "We Are Chefs," the digital content hub for the American Culinary Federation, Labarre (2020) claims "chefs show love by feeding others—it's in our DNA" and refers to chefs' "passion and nurturing personality." Similarly, chef Paul Basciano describes chefs as industry leaders as regards the prioritization of food waste reduction, asking them to be mindful of people without access to proper nutrition and the environmental burden of wasting food (Basciano 2022).

To investigate the role of care in the pursuit of FWB, we conducted a qualitative study and examined celebrity chefs' actions to minimize food waste. The next section details our research methodology, followed by the analyses of the data set and discussion of the main implications of our study.

Methodology

Using a large set of data triangulated from various sources, we conducted a qualitative study to explore how celebrity chefs can be the catalyst for creating a culture opposed to food waste and advancing FWB through caring actions. These world-renowned chefs, with Michelin stars or listed in "The World's 50 Best Restaurants" (<https://www.theworlds50best.com/>), possess vast expertise and credible knowledge and, thus, can be regarded as legitimate stakeholders in the food industry (Phillipov and Gale 2020; Thompson and Haigh 2017; Ulver and Klasson 2018). Celebrity chefs, as they are highly admired (Ulver and Klasson 2018) and visible, can influence the consumer's relationship with food (Phillipov and Gale 2020) and promote more sustainable food experiences (Batat 2020; Lundahl 2018). Moreover, due to their position in the industry, chefs can stimulate interactions among stakeholders, diffuse information, and help others navigate the food landscape (Welch, Swaffield, and Evans 2021).

Data Collection Procedure

Our data collection began with the Netflix documentary series *Chef's Table* and its spin-off, *Chef's Table: France*, which

both feature celebrity chefs around the world. Netflix reaches a broad range of consumers (Ulver and Klasson 2018), 65% of whom are potentially their household's main grocery shoppers (Yang 2017). It has been estimated that, up until 2018, the first episode of *Chef's Table* (featuring chef Bottura) had been viewed 25 million times globally (Zanatta 2018). The documentary series includes episodes structured around the presentation of one chef's biography, career, and food philosophy. The Netflix series served as a prompt to identify chefs to be included in our investigation.

The authors viewed each episode to screen for the chef's involvement in, and commitment to, fighting food waste. After viewing each episode, the authors decided on a final list of 12 chefs to analyze further. The selection of these chefs was purposeful and based on the presence in the chef's episode of explicit references to ways of saving food from becoming waste (e.g., using preserving techniques or innovative recipes). The chefs' profiles are presented in Table 1, which also features the justification for their inclusion.

Following recent procedures applied in digital media research (Valor, Lloveras, and Papaoikonomou 2021), in the second stage, we collected further data on each chef in our sample. This process served two functions. First, it helped us further ensure that the chefs included in our sample regarded food waste as an important problem in the industry, and that they were actively working to fight it. Second, we obtained a richer and more critical understanding of the chefs' actions in fighting food waste. We analyzed the websites connected to the chefs (i.e., restaurant websites, personal websites, and the websites of each chef's side projects; $n=33$). Then, we searched for articles and videos related to the chefs. We collected articles from online newspapers ($n=26$), magazines ($n=5$), and blogs ($n=28$) by searching for keywords (i.e., the name of the chef, "waste," "commitment," "leftovers," "fight," "food") and selecting those articles that contained at least two keywords. We also watched online videos featuring the chefs and their initiatives (e.g., TED Talks, Talks at Google; chef interviews; $n=8$ videos), and one documentary movie (i.e., *Theatre of Life*). We also collected data from one activity report, as well as books written by the chefs. We analyzed the Instagram profiles of the chefs and related activities, focusing on those chefs who use social media to discuss food waste. Finally, we collected user-generated content (UGC; i.e., consumer-generated comments) to understand consumers' responses to the chefs' activities. Specifically, we collected UGC from 11 social media posts related to food waste ($n=1,478$ UGC items in total), one YouTube video featuring a chef ($n=14$ UGC items), one online newspaper article ($n=17$ UGC items), and reviews of the chefs' books ($n=210$ UGC items).

The data collection started in 2018 and ended in November 2022, when saturation was reached. All the data were compiled and shared between the members of the research team. The final data set consisted of nearly 14 hours of videos, 55 online news articles (from blogs and online newspapers, totaling 211 single-spaced, 12-point Microsoft Word pages),

33 websites, one activity report, three books, and 1,719 UGC items.

Data Analysis Procedure

This study applies a qualitative thematic analysis (Corbin and Strauss 2008) based on an iterative process, using triangulation across data sources and among researchers (Schau and Gilly 2003). First, two authors separately analyzed the data collected on each chef to gain a holistic view of the research phenomenon and to outline the chef's activities and practices against food waste in greater detail. This process included taking notes about the data and then comparing notes among the authors for further insights. We categorized the activities and philosophies that guide the chefs, and then we conducted an interchef analysis to probe interpretations (Schau and Gilly 2003) and elicit common codes. This first step of the analysis identified 22 first-order codes of chefs' activities against food waste. In line with qualitative investigation (Mugel, Gurviez, and Decrop 2019), the concurrent collection of further data was conducted to expand and integrate the chefs' activities. This second step of the analysis generated a total of 44 first-order codes of activities. The data from the sources overlapped to a great extent, with the majority of the activities identified through the analysis of Netflix data (91%) also being found in the other data sources. A continuous comparison with relevant literature on food waste allowed us to assess the relevance of the identified activities, and to encapsulate each chef's activities within the phases of the food-waste sequence (Block et al. 2016). These first steps of the analysis were conducted by the first two authors to reach a shared understanding (Goulding 1999); the third author analyzed the data set separately to ensure the reliability. Table 2 synthesizes the chefs' actions against food waste according to the food waste sequence elaborated by Block et al. (2016). Each chef in the sample has been involved in at least one activity for at least one phase of the model, with an average of three phases out of seven.

We refined the codes of activities (Corbin and Strauss 2008) by scrutinizing the data separately and holistically to find new relationships among the codes. At the end of this process, we obtained a list of 14 second-order codes of activities, which were later reinterpreted according to the caring phases (i.e., caring about, caring for, caregiving, and care receiving) as developed by Tronto (2013) and subsequently applied to the consumption context (Parsons et al. 2021; Shaw et al. 2017). This phase included a continuous back-and-forth between the literature and the authors, while testing against alternative explanations (Parsons et al. 2021). Figure 1 illustrates the data collection and analysis process.

Triangulation was carried on through a constant comparison of the different data sources with researchers' field notes and interpretations to contribute to the trustworthiness of our findings (Mugel, Gurviez, and Decrop 2019). We also actively looked for, and included in our sample, negative comments and consumers' critiques of chefs' engagement against food waste. We present the results of our data analysis in the following sections.

Table 1. Sample Description.

Chef	Profile	Reason for Inclusion from Netflix Docuseries	Illustrative Quote
Alex Atala	Brazilian, chef of D.O.M. (Sao Paulo, Brazil): two Michelin stars and ranked tenth in “Latin America’s 50 Best Restaurants” in 2019 Awarded the Ordem do Merito Cultural by the Brazilian Ministry of Culture for his contribution to Brazilian culture Featured in <i>Chef’s Table</i> E2S2 and in <i>Mind of a Chef</i> documentary	He describes his philosophy on food, based on honoring and respecting food without wasting it.	“In the old days, as a kid, we go ... fishing and hunting in Amazonas ... and it was mandatory, if you kill a fish, if you kill something, to clean the fish and eat the whole entire animal. It didn’t matter what you killed ... it was a way to respect” (E2S2, at 8:41).
Dan Barber	American, chef and co-owner of Blue Hill and Blue Hill at Stone Barns (New York, New York): one Michelin star and ranked 28th in “The World’s 50 Best Restaurants” in 2019 Winner of the Chefs’ Choice Award in 2018 Among the 100 most influential people by <i>Time</i> in 2009 Featured in <i>Chef’s Table</i> E2S1	He narrates an example of the overpurchase of ingredients, and a way to minimize the waste of such abundance.	“It was deep into asparagus season ... and I opened up the walk-in refrigerator and there were just cases lined to the ceiling of asparagus. ... So I did this kind of edict thing where every dish is getting asparagus tonight ... we’re gonna do asparagus ice cream” E2S1, at 5:20).
Massimo Bottura	Italian, chef and owner of Osteria Francescana (Modena, Italy): three Michelin stars, Green Michelin Star for Gastronomy and Sustainability, ranked first in “The World’s 50 Best Restaurants” in 2016 and 2018 Featured in <i>Chef’s Table</i> E1S1	He makes himself and his creativity available to help suppliers save food.	“After the earthquake, the consortium Parmigiano came to me saying ‘Massimo, you have to help us ... 360k big wheels of Parmigiano are damaged ...’ I said to the president, ‘I have the idea. We’re gonna do a recipe on Riso Cacio e Pepe’ (E1S1, at 1:01),
Sean Brock	American, former chef at McCrady’s (Charleston, South Carolina), chef of the Husk and Audrey restaurants (Nashville, Tennessee) Winner of the Beard Award for Best Chef in 2010 HuffPost 2011 Game Changer Award Featured in <i>Chef’s Table</i> E3S6	He collaborates with suppliers to prevent food loss at the production stage.	Discussing varieties of rice: “they’re salt-tolerant, water-tolerant, disease-tolerant” (E3S6, at 28:03),
Dario Cecchini	Italian, butcher of Antica Macelleria Cecchini, chef of Solociccia, Dario Doc, and Officina della Bistecca (Panzano, Italy): recommended by the Michelin guide Called the “world’s best butcher” by the <i>New York Times</i> Featured in <i>Chef’s Table</i> E2S6	He describes how alternative and less desirable cuts of meat are traditionally cooked by the chef’s family.	“In the butcher shop, anything that the customer doesn’t want is the family food” (E2S6, at 0:29),
Dominique Crenn	French, chef and owner of Atelier Crenn and Bar Crenn (San Francisco, California): three Michelin stars restaurant, Green Michelin Star for Gastronomy and Sustainability, ranked 48th in “The World’s 50 Best Restaurants” in 2022 Icon Award 2021 from The World’s 50 Best Restaurants Featured in <i>Chef’s Table</i> E3S2	She includes in her menu alternative ingredients, such as wild greens.	“[The farmer] let me pop a root off. For me, it’s a curious smell. It’s an even weirder taste. This is Angelica. [Chef Crenn:] We find this in Europe a lot but not here. ... I’m thinking about ... we have a dish right now with oyster. Add it to oyster juice” (E3S2, at 10:50).
Musa Dagdeviren	Turkish, chef at Çiya Sofrası (Istanbul, Turkey) Included in the 50 Best Discovery Featured in <i>Chef’s Table</i> E2S5	He explains that making good use of each ingredient is rooted in his family’s values.	“As a kid, I was taught not to waste anything and to know the value of every little thing” (E2S5, at 12:09).
Jeong Kwan	South Korean, Seon Buddhist monk at Baekyangsa temple (South Korea): suggested	During a lecture at Jeonju University, she	“Whenever you have leftover flour or you throw away a lot of ingredients, that is not

(continued)

Table 1. (continued)

Chef	Profile	Reason for Inclusion from Netflix Docuseries	Illustrative Quote
	travel destination by the <i>Lonely Planet</i> travel guide Icon Award 2022 edition of Asia's 50 Best Restaurants Nicknamed the "philosopher chef" by the <i>New York Times</i> Featured in <i>Chef's Table</i> E1S3	teaches students that wasting ingredients should be avoided while cooking.	acceptable. You must treasure the ingredients" (E1S3, at 29:46).
Magnus Nilsson	Swedish, academy director of MAD Academy Former chef at Fäviken (Sweden): formerly two Michelin stars and among the top ten restaurants according to <i>Zagat</i> guide Featured in <i>Chef's Table</i> E6S1 and in <i>Mind of a Chef</i> documentary	He explains how he manages the abundance of the hot seasons.	"If you want to have potatoes in March, well, then you better harvest some potatoes in August and put them in your root cellar. ... brining cucumbers, or harvesting game meat in the autumn and freezing it for the winter" (E6S1, at 23:07).
Enrique Olvera	Mexican, chef and owner of Pujol (Mexico City, Mexico) and Cosme (New York, New York): ranked 9th and 22nd in "The World's 50 Best Restaurants" in 2022, Flor de Caña Sustainable Restaurant Award 2020 by Latin America's 50 Best Restaurants Featured in <i>Chef's Table</i> E4S2	He promotes a philosophy of using alternative edible ingredients usually discarded or not considered.	"It's [i.e., Chicatana ants] a very particular taste, and I just fell in love with it. ... If you have food available all the time, you probably wouldn't have eaten chikatana ants. ... But by that poverty ... we found things that are delicious" (E4S2, at 15:24).
Alain Passard	French, chef and owner of Arpège (Paris, France): three Michelin stars (since 1996), green Michelin star for gastronomy and sustainability, ranked 23rd in "The World's 50 Best Restaurants" in 2022 First chef to go vegetarian (2001) and maintain Michelin stars Winner of the "chef choice award" in 2019 Featured in <i>Chef's Table: France</i> (E1)	He uses his creativity to invent new dishes that use each part of the ingredients.	Talking about the Tarte Bouquet de Roses, which uses apples with peel: "I didn't see myself making an apple pie the same traditional way forever, just cutting apples into quarters. I needed to find something else. I had this idea of ribbon shaped like a rose that you put inside the pie" (E1, at 19:14).
Christina Tosi	American, chef and owner of Milk Bar (several U.S. cities) James Beard Award for Outstanding Pastry Chef in 2012 and 2015 Most Innovative Women in Food and Drink in 2015 by <i>Food & Wine</i> magazine Featured in <i>Chef's Table</i> E1S4	In a conversation between chef Tosi and her mother, they recall family traditions to avoid waste.	"The bad ones [apples], they call them 'drops,' when they fall on the ground, and they're bruised, and you really can't sell it, right? So, instead, my grandma would take the apples ... and either make applesauce or apple dumpling" (E1S4, at 6:41).

Caring for Food

Our analysis shows that chefs are aware of food waste and are willing to take the responsibility to act against it. Awareness of an issue, willingness and responsibility to act against such an issue—in this context, food waste—are prerequisites of caregiving, and refer to the first two phases of the caring model (i.e., "caring about" and "caring for"; Tronto 2013). Table 3 summarizes our findings according to the caring model.

Caring About: Becoming Aware of the New Role of Chefs in Addressing Food Waste

According to Tronto (2013), caring about entails being attentive and showing concern in order to identify caring needs. The celebrity chefs in our sample demonstrate a deep and broad

understanding of the current food supply chain and its deficits. Through a disenchanting reflection on food industry, chefs view certain aspects of popular culture as facilitating food waste and planet degradation. An abundance of food, manifested in huge meal portions, has become synonymous with a consumerist culture in which food waste is a sign of affluence (Parker, Umashankar, and Schleicher 2019; Porpino, Parente, and Wansink 2015). This is criticized by chef Dominique Crenn, who remembers her first impressions while socializing in American food culture: "there's a perception that if the plate is big you have to get your value for it... you don't because the food you're wasting isn't good for the planet" (chef Crenn, in Ko 2017).

Referring to the connection between portion size and food waste, chef Crenn denounces the widespread idea that food abundance conveys value and generosity (Mugel, Gurviez, and Decrop 2019; Scott and Vallen 2019), which is crucial to

Table 2. Synthesis of Chefs' Activity Against Food Waste Along the Food Waste Sequence (Block et al. 2016).

Phase	Chef	Activity
Production	Barber	Collaborates with suppliers to enhance food's taste and cultivation efficiency (Brennan 2018; <i>Chef's Table</i> E2S1; Rosati 2017)
	Barber	Helped farmers sell their produce with ResourceD boxes during COVID-19 lockdown (Sgarbi 2020)
	Barber, Nilsson	Contributed to the reintroduction of veal calves (Cooper 2017), milk cattle, and older animals (<i>Chef's Table</i> E6S1; Phaidon 2022) in the supply chain
	Brock	Collaborates with local suppliers to safeguard traditional seeds and minimize waste (<i>Chef's Table</i> E3S6; Greenaway 2015; Brock 2022)
	Bottura	"Riso Cacio & Pepe" recipe helped save Parmigiano cheese damaged by the earthquake (<i>Chef's Table</i> E1S1; De Souza 2021)
	Olvera	Reintroduced the Milpa system, which leverages plants' coexistence and minimizes waste (<i>Chef's Table</i> E4S2)
Storage & Transport	Brock	Prepares homemade preserves to extend the life of ingredients (Audrey Nashville 2022; <i>Chef's Table</i> E3S6; <i>Mind of a Chef</i> E5S2)
	Crenn, Kwan	Use fermentation, smoking, and dehydration (e.g., cabbage; pumpkins; <i>Chef's Table</i> E1S3; Han 2022) to prepare and conserve ingredients (Steingarten 2017)
	Nilsson	Uses old methods to preserve food (<i>Chef's Table</i> E6S1; also explained in his book)
	Olvera	Adapts procedures to preserve and save leftovers for creative dishes (e.g., Style Solera for Mole Madre; <i>Chef's Table</i> E4S2)
Processing & Packaging	Atala, Olvera	Volunteered at Refettorio Gastromotiva to save food during the Olympic Games (Ferst 2016; Jacobs 2016)
	Atala, Olvera	Volunteered at Refettorio Ambrosiano for a charity dinner based on leftovers (Bottura 2017)
	Atala, Barber, Bottura, Brock, Crenn, Tosi	Use edible parts or food by-products (e.g., chickpea water, Rossi 2017; guinea fowl carcasses, Bottura 2017; melon peel, Ko 2017; Steingarten 2017) that are usually discarded in creative dishes at their restaurants (e.g., ham-fat cotton candy, <i>Chef's Table</i> E2S2; E3S6; Bolger 2017; Make Haste Not Waste 2013)
	Barber	His main restaurant serves dishes that minimize waste by using leftovers, "ugly" ingredients, and food by-products (<i>Chef's Table</i> E2S1; Richman 2014)
	Bottura	Founded the Food for Soul association, which built 18 soup kitchens (i.e., refettorios) worldwide that save tons of food (Food for Soul 2016; Rossi 2017)
	Crenn	Prepared a "Waste Not, Want Not" dinner based on leftovers (Baltazar 2016)
Point of Sale	Atala, Bottura, Brock, Cecchini	Their restaurants serve alternative meat cuts (e.g., pigs' ears; <i>Chef's Table</i> E2S2, E2S6, E3S6; Cecchini 2021; D.O.M. 2013)
	Atala, Olvera	Their restaurants serve alternative ingredients (e.g., flying ants; <i>Chef's Table</i> E2S2, E4S2; D.O.M. website 2013)
	Atala, Bottura	Revived traditional recipes to maximize the use of each ingredient and use leftovers (<i>Chef's Table</i> E1S1, E2S2; Gordinier 2016)
	Barber	Built two WastED pop-up restaurants (New York in 2015, London in 2017), saving food leftovers or usually discarded ingredients (Fuhrmeister 2017; Rossi 2017)
	Olvera	Worked with Barber at his WastED pop-up restaurant (Rossi 2017)
	Bottura	Famous dessert "Oops! I dropped the lemon tart," which risked being wasted as the result of an accident (<i>Chef's Table</i> E1S1; Gordinier 2016)
Consumer acquisition	Passard	Plans to enrich his menu with wild greens that grow in his garden (Repanich 2018)
	Atala	Contributed to rebuilding Sao Paulo's "old market," where traditional ingredients that are no longer sold elsewhere can be found (Ferst 2016)
	Barber	The Stone Barn Center sells alternative cuts of meat (Stone Barns Center Market 2022)
	Cecchini	Offers price reductions on regular cuts of meat if bought together with less-recognized cuts at his store (Cecchini 2021)
Consumption	Passard	Patented "Tarte Bouquet de Roses," using apple peel (<i>Chef's Table: France</i> E1)
	Passard	Sells his garden's surplus produce in boxes (Les Paniers D'Alain 2022)
	Atala	Gives speeches to schoolchildren to educate them about food waste (Bottura 2017)
	Atala	Organized a congress called FRUTO to raise awareness of food waste and sustainability (Bolger 2017)
	Bottura	Provides a collection of recipes that use leftovers in the book <i>Bread Is Gold</i> (Repanich 2018)
	Bottura	Kitchen Quarantine on Instagram presents some recipes made of leftovers (e.g., beans, Easter egg chocolate)
	Cecchini	Conducts a "butcher workshop" to teach consumers how to use every single cut of meat (Cecchini 2021)
	Cecchini	Committed to teaching the importance of eating alternative cuts of meat (<i>Chef's Table</i> E2S6; It's Tuscany 2021)
Disposal	Dagdeviren, Kwan, Nilsson	Committed to educating young professionals about how to minimize waste (e.g., lectures at Jeonju University; <i>Chef's Table</i> E1S3, E2S5; MAD Academy 2022)
	Passard	Shares recipes that make use of seasonal, often abundant, products (Instagram profile)
	Tosi	Shares easy recipes to use leftover ingredients (e.g., overripe bananas) (Tosi 2020)
	Barber, Crenn	Aspire to make their restaurants zero-waste buildings (Michelin Guide 2020; Stephen 2018)
	Crenn, Olvera, Passard	Their restaurants' waste is composted and sent to their farms (e.g., Blue Belle Farm; Michelin Guide 2020), their gardens (Eskins 2019), or their suppliers (Sansom 2020)

stimulating a more positive relationship with food. Notably, chefs' critical positions are supported and legitimated by their cultural background and status as globally recognized chefs (e.g., via their Michelin stars). They acknowledge their power to "speak for others that don't have a voice" (chef Crenn, in CNN 2018) and to influence food culture and the supply chain thanks to "the power to put the pieces together in a way that very few people do, because we put these issues on the plate, literally" (chef Dan Barber, in Bryce 2015).

Moved by a similar spirit, chef Magnus Nilsson, director of the MAD Academy (which aims to "support the hospitality and food industry with tools and knowledge for making a positive change" [MAD Academy 2022]), took an even more critical stance and advocated a deeper change. In criticizing the chefs who "boast in articles about their efforts to reduce food waste by talking about whatever clever fermented seasoning they have managed to make from scraps or that they have given up straws" (Nilsson, in Phaidon 2022), chef Nilsson points out that superficial solutions will prevent deeper changes in the food industry.

Caring For: Willingness to Take Responsibility

The chefs in our sample recognize that "the chef of the future has a very important sense of responsibility" (chef Massimo Bottura, in Gordinier 2016) and describe themselves as "chef, ... artist, and ... activist" (chef Crenn, in CNN 2018). Respect and solidarity are qualities that help chefs, as caregivers, feel a responsibility to address food waste (Shaw et al. 2017; Tronto 2013). For instance, chefs show care when they observe a deficit of care (Tronto 2013) and a lack of respect toward less valued parts of food that end up wasted, as chef Crenn explains:

When we get vegetables from the farm, we use everything. For example, if we use a melon, we use the meat but we also use the skin to make vinegar. You have to really embrace and celebrate what you have because it's a gift. (chef Crenn, in Ko 2017)

Chef Crenn's care about the ingredients entails taking the responsibility to fully use them without wasting any part, because she also has the skills to act on this sense of responsibility (i.e., having the ability to extract vinegar from the skin of fruits). Caregiving, indeed, requires competences, a relevant background, knowledge, and skills. In the following section, we illustrate how chefs actualize their competences in the process of caring for the fight against food waste.

Caring in Action

The fight against food waste is carried out through multiple care actions. Our interpretation of such care actions is that chefs enact practices to support care recipients—that is, consumers, actors in the supply chain, and society at large—to become

more autonomous and independent in terms of dealing with food in a less wasteful way.

Making and Reviving Connections

As the distance between caregivers and care recipients is an obstacle to caring, chefs try to reduce the distance between themselves and the stakeholders in the food value chain. Moreover, chefs also target broken or unhealthy connections with food that nurture food waste and negative emotions related to food waste, at both the supply and demand levels.

Making and reviving connections with stakeholders. Our analysis reveals virtuous examples of successful partnerships between chefs and suppliers. Underpinning such collaborations is the chef's acknowledgment of the vital role that farmers and suppliers play in the food supply chain, and the importance of supporting them in developing FWB. The current production system disempowers suppliers and alienates them from having a positive relationship with food (Maglaras, Bourlakis, and Fotopoulos 2015; Mesiranta, Närvänen, and Mattila 2022). Therefore, connecting with stakeholders first involves emphasizing the value of farmers' knowledge and expertise in maximizing the quality, taste, and sustainability of food. Chefs are heavily reliant on farmers for (re)introducing traditional farming practices that avoid the use of pesticides and fertilizers, by favoring animal power and crop rotation. For example, to prevent waste, chef Enrique Olvera relies on the pre-Hispanic Milpa system, in which "plants co-exist and work together. So, the corn will draw a lot of nitrogen from the soil, and the bean releases it. There is no waste. Everything gets utilized" (chef Olvera, in *Chef's Table* Episode 4, Season 2 [E4S2]).

Working closely with suppliers is a fundamental step toward creating more value in the food supply chain. First, such collaboration leads to better food quality, sustainability, and taste (Brennan 2018; D.O.M. 2013; Rosati 2017). Most chefs own gardens or farms where they collaborate with farmers and gardeners to sustainably grow vegetables or breed animals (e.g., chef Passard's gardens, orchard, and beehives; chef Barber's and chef Crenn's farmhouses for growing fruits, vegetables, herbs, and flowers and breeding animals; chef Brock's cultivation of black corn). Second, chefs value the work and voice of farmers and suppliers who are "companions, life partners" that help them "have the best vegetables" and "be creative" (chef Passard, in *Chef's Table: France* E1). Chefs try to learn about farmers' issues (e.g., the survey Barber conducted to understand the issues faced by farmers in 2020; Sgarbi 2020) and develop initiatives to help them. Such care actions acknowledge and empower the farmers, which helps reduce the distance between them and the chefs, as illustrated by a vegetable breeder working with chef Barber: "In all my years of breeding, no one has ever asked me to breed for flavor ... as a breeder, you're really discouraged from working on that ... it's really set us free" (Mazourek, in *Chef's Table* E2S1).

Third, the collaboration with chefs is an "incentive to other farmers from that region" (D.O.M. 2013) that may help

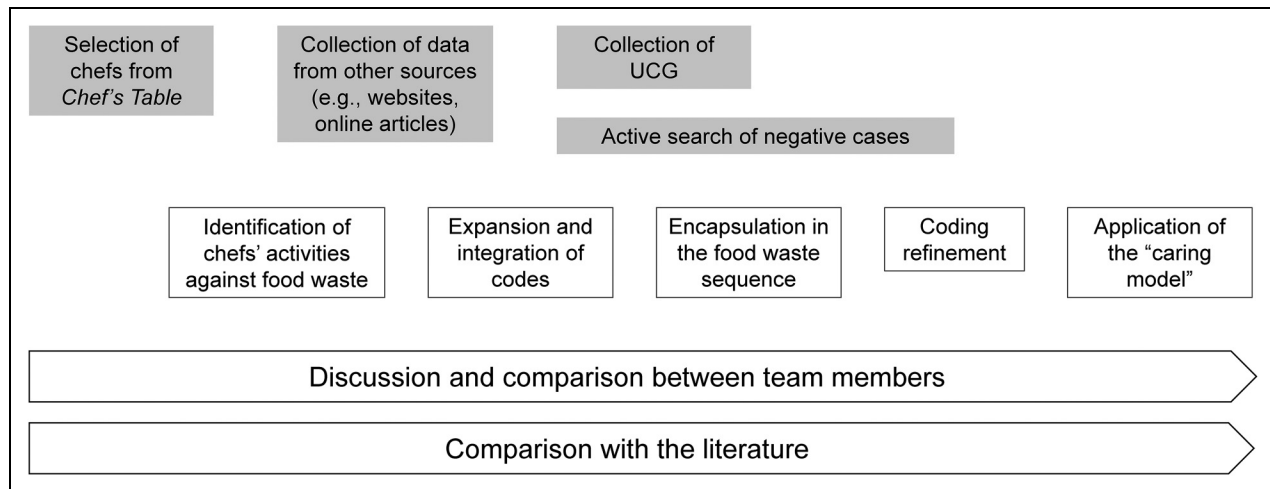


Figure 1. Graphical Representation of the Data Collection and Data Analysis Process.

overcome supply chain fragmentation by connecting multiple suppliers who ordinarily work in isolation. Such interactions could be essential for the identification of alternative ways of using by-products. For instance, one of Dan Barber's initiatives, the pop-up restaurant WastED, connected various suppliers including breweries (for malt grain), salmon processors (for usually discarded meat), cheese factories (for flawed cheese), and vegetable processors (for vegetable cuts).

Working closely with suppliers also involves helping them overcome contextual issues, such as dealing with excess produce or unattractive food. With restaurants closed and consumer mobility limited, the COVID-19 lockdown negatively impacted the whole restaurant industry, leaving farmers alone to deal with products usually processed by restaurants. During this period, Barber helped his suppliers with ResourcED boxes (Sgarbi 2020). Chef Bottura made famous the recipe of "riso cacio e pepe," which allowed Parmigiano Reggiano cheese producers to save tons of cheese wheels damaged by the 2012 earthquake in Emilia-Romagna (*Chef's Table* E1S1).

These cases emphasize how saving food from waste is intrinsically a social activity, which might benefit other stakeholders in the supply chain. In addition to preventing waste, such caring actions also help avoid job losses and keep the industry on its feet (De Souza 2021). Another way in which chefs connect stakeholders is via soup kitchens (i.e., *refettorios*) that are set up in vulnerable areas and provide meals using edible food discarded by large distributors. Chef Bottura's Food for Soul association is designed to orchestrate the flow of surplus food from multiple organizations (e.g., retailers) to vulnerable communities. The association, with a team of more than 100 international chefs and 500 volunteers, recovered more than 670 tons of ingredients, including blackened bananas and overripe tomatoes, to create more than 1.53 million meals (Food for Soul 2016; Rossi 2017), allowing multiple soup kitchens to be built and operated with the help of other celebrity chefs, such as chef Atala (Jacobs 2016), and chef Olvera (Ferst 2016). Bottura's soup kitchens have become one of the loci of care

that generate a positive relationship with food, as they are "about social inclusion, teaching people about food waste and giving hope to people who have lost all hope" (Jacobs 2016). Soup kitchens represent loci of care where the relational and dynamic nature of caring unfolds. For a soup kitchen to operate, chefs need to collaborate with different stakeholders, including consumers, gardeners, retailers, food suppliers, non-governmental organizations, and public institutions. Such a collaborative nature of caring aligns with Bubnitz et al.'s (2019) observation that it is necessary to connect multiple stakeholders to overcome the challenges created by the current food supply chain.

Reconnecting with food. Edible food is often discarded because some ingredients are systematically excluded by the current food supply chain. As a consequence, consumers have become increasingly unfamiliar with, and more skeptical about, certain ingredients. We found that chefs showcase how to transform "disgusting" ingredients into something complex and surprising. Chefs such as Atala (Bolger 2017; D.O.M. 2013), Brock (*Chef's Table* E3S6), and Cecchini (*Chef's Table* E2S6; Cecchini 2021) serve alternative cuts of meat, such as tail, tongue, or knee. Barber uses "ugly" ingredients (i.e., misshapen fennel) and leftovers for his beetfurter dish (*Chef's Table* E2S1; Richman 2014). Often-discarded ingredients have become the basis for surprising and even award-winning dishes (e.g., carcass and bones by Bottura [Richman 2014] and fat in Brock's dish "ham-fat cotton candy" [*Chef's Table* E3S6]), which are offered at these chefs' restaurants to exemplify how humble ingredients can be elevated and served. For instance, chef Passard uses apple peel for his signature and patented dessert, Tarte Bouquet de Roses. Atala uses Canastra cheese rind "which would usually go to waste ... to provide the final crunchy topping to the *Dulce de leche*" (Bolger 2017). Chef Barber mixes beetroot with "pork and scraps of beef—over bone char, a charcoal made from bones, fallen tree limbs and other organic leftovers," and presents

Table 3. Synthesis of the Findings Organized According to the Caring Model.

Caring for Food		
Caring About: Awareness of Chefs' New Role in Addressing Food Waste	Caring For: Willingness to Take Responsibility	
Chefs analyze and critically question the current supply chain. A deep analysis of the current food industry makes them aware of its deficits, which are denounced by chefs.		
Caring in Action		
Making and Reviving Connections	Transmitting Responsibility	Simplifying Tasks
<p>Characteristics</p> <p>Connections are created with stakeholders through partnerships and collaborations, with food items that are usually discarded, and with consumers through the reconnection with their roots (i.e., traditional recipes).</p> <p>Deficit of care</p> <p>Reduced food value perception</p> <p>Psychological distance</p> <p>Negative emotions</p>	<p>Chefs engage in activities meant to transfer their knowledge about food and to raise awareness and understanding about food waste, while promoting responsibility.</p> <p>Lack of awareness</p> <p>Lack of perceived responsibility</p>	<p>Chefs engage in demonstrations of how to process and make the best use of each ingredient. These activities are meant to facilitate imitation and reduce the negative emotions that may emerge with food waste.</p> <p>Negative emotions</p> <p>Lack of self-confidence</p>
<p>Webs of care</p> <p>Actors involved</p> <p>Retailers and food producers</p> <p>Volunteers and nongovernmental organizations</p> <p>Public institutions</p> <p>Suppliers of "alternative" ingredients</p> <p>Suppliers and farmers via collaborations</p> <p>Vulnerable communities</p> <p>Consumers</p> <p>Food availability</p> <p>Food socialization</p> <p>Food policy</p>	<p>Education and public institutions</p> <p>Other chefs</p> <p>Experts in multiple domains (e.g., anthropologists)</p> <p>Young professionals</p> <p>Consumers and young consumers</p> <p>Social media users</p> <p>Food literacy</p> <p>Food policy</p> <p>Food socialization</p> <p>University, culinary schools and educational centers</p> <p>Chefs' restaurants</p> <p>Conferences</p> <p>Soup kitchens</p> <p>Social media (e.g., Instagram)</p>	<p>Public institutions</p> <p>Consumers</p> <p>Chefs' customers</p> <p>Internet users</p> <p>Food literacy</p> <p>Food marketing</p> <p>Chefs' stores (e.g., Barber's Stone Barn Center)</p> <p>Books</p> <p>Social media and websites</p>
<p>FWB</p> <p>Locus of care</p> <p>Chefs' side-activity locations (e.g., Barber's Stone Barn Center)</p> <p>Markets</p> <p>Soup kitchens</p> <p>Chefs' restaurants</p> <p>Books</p>		
Care Receiving		
<p>460k pounds of food were saved during the Olympic Games in Rio (Jacobs 2016).</p> <p>Barber's pop-up restaurant in New York enabled savings of 600 pounds of "ugly vegetables," 30 gallons of beef tallow, 475 pounds of skate cartilage, 350 pounds of vegetable pulp, and 900 pounds of pigs fed with waste (Fuhrmeister 2017). A dinner based on leftovers was prepared for UN representatives (Bryce 2015).</p> <p>360k wheels of Parmigiano cheese were saved thanks to "riso cacio e pepe" recipe by Bottura; 40k people prepared the recipe (<i>Chef's Table</i>, SIEI).</p> <p>Bottura's foundation, Food for Soul, opened 18 soup kitchens and recovered 1.34k pounds of food (Food for Soul 2016).</p> <p>Through one of his restaurants, Brock provides 2,000 meals per week to people in need (Audrey Nashville 2022; Wrathner 2020).</p> <p>700 traditional Brazilian ingredients are sold at Sao Paulo's "old market," rebuilt by Atala (Ferst 2016).</p> <p>In the United States, 500 farms participated in the survey by chef Barber (Sgarbi 2020).</p> <p>Together with some farmers, Barber founded the Row 7 Seed Company, which cultivates and sells organic seeds (Schumacker 2018).</p>	<p>FRUTO congress (2018) involved 32 speakers from different disciplines (Tonon 2018). The YouTube channel of the program has more than 10k subscribers.</p> <p>Atala's speech at Google and his TED Talk achieved 21k and 44k views respectively; Barber's TED Talks have more than 305k and 169k views; Cecchini's talk to MAD Academy in 2013 has 42.2k views; Dagdeviren's talk at Google has more than 19k views.</p> <p>Chef books: three books by Atala and three by Tosi; two each by Bottura, Brock, Crenn, Nilsson, and Olvera; one each by Barber, Dagdeviren, Kwan, and Passard.</p> <p>Barber wrote an article for <i>The Guardian</i> on food waste titled "Home Cooks Can Beat Food Waste. So Where Do We Start?" (Barber 2017).</p> <p>Barber was featured in the documentary <i>Wasted! The Story of Food Waste</i>. Brock was featured in season 2 of <i>Mind of a Chef</i> (Emmy award-winning television show).</p> <p>Bottura has been appointed as UN Environment Programme Goodwill Ambassador.</p>	<p>Atala's and Tosi's YouTube channels have 356k and 12k subscribers, respectively.</p> <p>Instagram followers: Atala 931k; Barber 405k; Bottura 1.5 million; Brock 266k; Cecchini 131k; Crenn 339k; Nilsson 291k; Olvera 359k; Passard 605k; Tosi 516k.</p> <p>Bottura's Kitchen Quarantine videos won him the 2020 Webby Chef of the Year (Scuri 2020).</p>

them in the form of a hot dog, highly appreciated by restaurant guests (Richman 2014). The chefs' creative skills and ability to recognize the value of food allow them to recover and valorize ingredients that may otherwise end up wasted.

In this vein, chefs promote the (re)connection with ingredients that are largely neglected by the current food system. Chefs Atala and Olvera offer unusual ingredients, such as ants, on their menus (*Chef's Table* E2S2, E2S4; D.O.M. 2013). Atala has also contributed to the construction of a market in Sao Paulo where traditional Brazilian ingredients, often neglected on contemporary Brazilian tables, are sold (Ferst 2016). Other chefs utilize more common ingredients often excluded by the food supply chain. Reintroducing certain ingredients, such as veal calves by Barber (Cooper 2017) or milk cattle and old animals by Nilsson (*Chef's Table* E6S1; Phaidon 2022), not only increases the efficiency of the supply chain but also adds value to food by magnifying the taste. The following quote by chef Nilsson, which describes the rich flavor of a dairy cow that is usually raised for its milk, illustrates this point:

The first dairy cow that we bought, it had a depth of flavor and things that I didn't find in ordinary beef. ... The dairy cow that has mostly eaten grass during its life ... you will have much more flavor, you will have much more texture. (Chef Nilsson, in *Chef's Table* E6S1)

Renovating the link with their roots. The chefs in our sample rely heavily on traditions to create their dishes, usually by reviving traditional recipes and reintroducing traditional ingredients with an innovative touch. Being aware that, in older traditions, "the leftovers became an incredible resource to be recovered" (Bottura 2017, p. 186), chefs rely on wisdom from older generations and family members "emulat[ing] the grandmothers of the world" who "knew how to take the food that would otherwise be wasted and turned it into amazingly delicious meals" (Jacobs 2016). The signature dishes of most of the chefs in our study are revivals of traditional recipes that make use of leftovers or alternative ingredients, such as ravioli by Bottura or yeast from oak ash by Dagdeviren (*Chef's Table* E1S1; Gordinier 2016).

Chefs also make use of traditional ways of preserving food. Nilsson conducted extensive research on the traditional preserving techniques of Northern Europe to cope with the lack of vegetables during the arctic winter and the abundance of summer (*Chef's Table* E6S1; Phaidon 2022). For chef Sean Brock, "preserving food is a really fantastic way to eat it through the winter, ... and enjoy the taste of summer when it's snowing outside" (Brock, in *Mind of a Chef* 2017). Chef Jeong Kwan uses fermentation and dehydration to preserve food for winter (*Chef's Table* E1S3; Han 2022). In other instances, chefs' creativity allows for the reinterpretation of old techniques to be applied to uncommon ingredients and dishes. This is the case with chef Olvera, who converted the solera-style technique for wine to create his signature dish "Mole Madre" (*Chef's Table* E4S2).

We observe that the promotion and revival of traditional recipes can be a powerful way to connect with consumers. First, chefs frequently use readily available ingredients, such as bananas (recipe in the book *Bread Is Gold*) or "leftover crumbs and components from various desserts" (Make Haste Not Waste 2013), that are accessible to consumers. Second, the traditional recipes proposed by chefs, albeit in a modernized form, are recognized by most consumers as also being part of their own family traditions, as exemplified by this UGC item: "This has been a staple in my family forever. The recipe is very close to my grandma's!" (response to Bottura's recipe on Michelin Guide Instagram post, June 27, 2021). The re-creation of traditional recipes connects chefs and consumers around care to fight food waste by attaching food with emotional meaning (Shaw et al. 2017; Tronto 2013) and creating a bond among the different generations of their families (Mendini, Pizzetti, and Peter 2019).

Our data reveal that the renewal of former traditions also implies the reintroduction of bygone ingredients, often neglected because of the use of more modern and globalized ingredients. Chef Atala, for instance, promotes the use of manioca, a typical Brazilian ingredient, instead of nontraditional ingredients (*Chef's Table* E2S2). Chef Passard plans to include on his menu the wild greens that spontaneously grow in his gardens (Repanich 2018) and were traditionally used. Wild greens can easily be used in soups, and Olvera uses them in a sauce, in an alternative version of his mole (Bottura 2017, p. 186). In other cases, chefs support local farmers in cultivating traditional ingredients. For example, chef Brock works directly with seed farmers to cultivate traditional and almost extinct seeds (e.g., grains, legumes, oilseeds, and rice) to modernize Southern food dishes (*Chef's Table* E3S6; Greenaway 2015; Brock 2022), while safeguarding food heritage with seeds that are "salt-tolerant, water-tolerant, disease-tolerant" (G. Roberts, seedsman, in *Chef's Table*, E4S6).

Transmitting Responsibility

According to the caring literature, understanding their role in, and responsibility for, the issue is paramount for care recipients to become independent. Our analysis reveals that chefs are involved in multiple activities intended to raise awareness about the current food waste issue and to elicit a sense of responsibility in people.

The chefs use various means—from giving lectures to mentoring—to teach stakeholders how not to waste food, to respect ingredients, and to embrace the diversity of food culture. Young professionals are specifically the targets of lectures by chefs Dagdeviren (*Chef's Table* E2S5), Nilsson (MAD Academy 2022), and Kwan (*Chef's Table* E1S3). For instance, chef Kwan teaches her students at Jeonju University that "whenever you have leftover flour or you throw away a lot of ingredients, that is not acceptable" (*Chef's Table* E1S3). Chefs also give lectures to consumers who already have an interest in food and want to improve their food literacy. For example, chef Cecchini offers a one-day course titled "Butcher for a Day" for a small paying audience. This small and rather affluent

group of customers “put on an apron” and “get their hands dirty” (Cecchini 2021) to prepare typical Tuscan cuts of meat by applying Cecchini’s philosophy of using each cut.

Chefs are also committed to spreading the message beyond food industry practitioners by participating in public talks and conferences. For example, in 2018 chef Atala organized a congress called FRUTO to raise public awareness about sustainability and waste (Bolger 2017). Special attention is devoted to younger generations, who possess limited cooking skills and food-waste awareness. For instance, chef Bottura once invited chef Atala to his Refettorio in Milan to cook with schoolchildren and “spread our message among the youngest” (Bottura 2017, p. 306).

Besides such face-to-face opportunities, chefs reach a wider and global audience via their extensive use of media. Most of the chefs in this sample have written at least one book in which they synthesize their food philosophy. They are also frequently interviewed by journalists, or publish articles in other media outlets, such as chef Barber’s article about food waste in *The Guardian* (Barber 2017). Moreover, many of these chefs possess social media accounts (e.g., Instagram and YouTube), which are widely followed by users. For instance, chef Bottura updates his Instagram page about his initiatives (e.g., Food for Soul), his achievements (e.g., his Michelin green star), the events he attends (e.g., the United Nations [UN] Food Systems Summit in 2021), and special days (e.g., World Food Day). Chef Passard also posts pictures of his gardens, where he grows vegetables and fruits, and shares recipes using seasonal products. Analyzing consumers’ responses to the chefs’ communication efforts, we found evidence of consumer engagement, such as consumers thanking the chefs, asking them questions, and sharing their own experiences. The following quote, a comment on Bottura’s post about food waste, illustrates that chefs’ efforts can help increase consumers’ awareness about the issue:

This information hurts, it’s sad that we don’t talk enough about it. As a mother, I think that is insane that there are mothers who cannot afford a meal, and meanwhile tons of food are wasted. Each of us doesn’t need to do too much to end this. ♥ Bravo Massimo (UGC in response to Bottura’s post, April 12, 2021)

Chefs’ posts can also elicit skeptical responses from consumers, who consider the problem too broad and global to be effectively tackled by celebrity chefs: “This is nice but let’s be realistic- how are you going to feed 10 billion empty stomachs?” and demanding more proof: “I have to get some evidence of that to believe it” (UGC in response to Barber’s TED Talk on foie gras, 2009).

Chefs also offer tangible examples of the importance of not wasting food. A primary locus where chefs enact care is their restaurants. Chefs use their restaurants to sensitize the public about a nonwasteful food culture; their meals, usually prepared with alternative ingredients, invite customers to reflect on, and learn about, not wasting. Chef Cecchini, who believes that “the only way to not waste anything is to put the food on the plate and make them understand”

opened Solociccia, “Just Meat,” where he cooks “snout to tail, legs, tendons, everything ... but no steak” (Cecchini, in *Chef’s Table* E2S6). Cecchini’s initiative was so successful and inspiring that consumers “went back to their own countries inspired by what Dario’s doing. Restaurants are asking for cuts that they never asked for before” (F. Willinger, food journalist, in *Chef’s Table* E2S6).

Notably, chefs sensitize the public to the issue of food waste in other venues. In Barber’s pop-up WastED restaurants in New York and London, consumers can taste how delicious an often discarded ingredient can be (Rossi 2017). One of the stars of the WastED menu, a burger made of leftover vegetable pulp, illustrates this point:

Whilst in London, Barber walked past a trendy juice bar and asked them what happened to the pulp that comes from all that juicing. The answer – it gets thrown in the bin. Barber took the leftover veg pulp back to the restaurant and designed a dish for his menu – a veg pulp cheeseburger. (Cooper 2017)

Barber’s dish inspired other celebrity chefs, such as Olvera, who offer their skills in preparing food with discarded ingredients (Rossi 2017). The waste-food menu achieved approval and visibility with visits from famous food critics and world leaders from the UN (Danovich 2015).

Simplifying Tasks

Individuals may feel overwhelmed when facing difficult issues such as those related to well-being and sustainability. In education, simple tasks and demonstrations help learners contain anxiety and focus on the task. The learner recognizes the higher knowledge and expertise of the caregiver, who is a trusted model. Similarly, between chefs and consumers, there is an asymmetry in expertise that facilitates imitation. To foster learning, chefs produce artifacts aimed at guiding individuals in simple tasks (i.e., recipes) that can easily be reproduced autonomously by the care recipient.

Using supposedly simple ingredients. Chefs’ expertise and creativity enable them to manipulate usually discarded edible ingredients and use them in existing or new recipes. Chef Barber, for instance, uses chickpea water in one of his signature dishes, the Dumpster Dive salad “made from pistachios, bruised apples and pears, and served with chickpea water ... transformed into a velvety emulsion sauce” (Rossi 2017), as an alternative to egg whites and to add flavor. Chickpea water, which is usually found in cans to preserve chickpeas, is an easily available ingredient that is in fact a by-product of food mass production and, as such, is an emblematic example of caring about not wasting food and respecting ingredients. Chickpea water, also called aquafaba, has become popular among consumers too, as illustrated by #aquafaba being used over 1,000 times on Pinterest (Laurence 2016).

Despite the availability of such ingredients, the strategy of simplification sometimes fails because of a misunderstanding

of what constitutes “simple” for consumers. Some consumers find the alternative ingredients recommended by chefs difficult to access, or they may be hesitant to use them because of their own limited skills. For instance, we found that some consumers doubt the feasibility of some of the dishes showcased by chefs, because they present “obscure ingredients” (Amazon review of *Bread Is Gold* book 2019), ingredients that are not easily found, or “things I don’t use much” (Amazon review of *Bread Is Gold* book 2019). As a response to this supposed lack of availability, chefs use their restaurants to supply some alternative ingredients to the market. Chef Barber sells alternative cuts of meat through his Stone Barns Center (Stone Barns Center Market 2022), and chef Cecchini sells alternative cuts of meat and promotes them with discounted prices (Cecchini 2021).

Providing guidance on how to easily replicate recipes to fight food waste. One activity through which chefs help consumers enhance their skills is sharing recipes and tips to prepare easy dishes with often discarded ingredients. For example, the book written by chef Bottura (2017), *Bread Is Gold: Extraordinary Meals with Ordinary Ingredients*, showcases how to make use of stale croissants for a pudding, or how to dry external vegetable leaves to deepen the flavor of dishes (Repanich 2018). Similarly, chef Passard provides vegetable-based recipes in his book, *The Art of Cooking with Vegetables*, and chef Dagdeviren details in his book, *The Turkish Cookbook*, the fieldwork he conducted to collect culinary traditions and recipes in 40 villages in Turkey.

We observed that books can be effective at inspiring consumers. For instance, one consumer reviewing Bottura’s book calls it “one of the rare cookbooks that change the perspective on cooking and food. ... Reading this book has pushed me to study cooking techniques to be able to replicate them with the broadest variety of ingredients” (Amazon review 2020), thereby describing how the book helped change their relationship with food and cooking. Some consumers, however, are critical of chefs’ books in terms of the feasibility of the recipes for the general public, because such recipes require “love [for] cooking” (review on Bottura’s book, November 11, 2020).

Many chefs use other channels (i.e., social media or websites) to provide access to a wider public beyond their own restaurant customers or the food connoisseurs who buy their books. Social media and websites are used to share recipes and to highlight the issue of food waste. During the COVID-19 lockdown, chefs were particularly active in providing guidance to consumers with easily replicable recipes. Chef Christina Tosi used her website to illustrate such recipes at home, such as Compost Pancakes and Microwave Mug Cake for “fold[ing] in any crazy ingredients from your pantry” (Tosi 2020). Some of Tosi’s recipes are made with leftover ingredients, such as overripe bananas (Tosi 2020), in line with her practices in her restaurants (Make Haste Not Waste 2021). Another example is Kitchen Quarantine, a homemade Instagram series by chef Bottura, in which he provides many recipes, some of them made of leftovers, such as a chocolate mousse with leftover Easter eggs. Thanks to this initiative, the UN Environment Programme appointed chef Bottura as a Goodwill Ambassador

for his activities and commitment to “feeding the planet.” Chef Bottura, now recognized as a caregiver, can exert “a greater impact. Massimo Bottura’s Goodwill Ambassadorship is intended to send a message to inspire a change of mindset that starts at home, in our kitchens” (UN Environment Programme 2020).

Consumers’ reactions to chefs’ use of social media are mixed. On the one hand, we found enthusiastic and empathetic responses to chefs’ posts (“I loved when you & your family did Kitchen Quarantine, such good ideas and inspiration!” [UGC in response to Bottura’s Instagram post, June 7, 2021]). On the other hand, some consumers seem more skeptical and critical, demanding more guidance and practical information on how to cook food that is commonly wasted. As exemplified by the following comment to Bottura’s post on sprouted potatoes, proper guidance is crucial to enhancing consumer engagement:

You could have been much more helpful if you had explained what to do with a potato that has sprouted. You complain about waste, but you seem unaware that most people would actually like a solution to using food like the potatoes we see. Do you trim them deeply? Is it best to only boil them? Make soup or puree them? (UGC in response to Bottura’s post on sprouted potatoes, April 12, 2021)

Thus, chefs’ care for food is enacted through multiple caregiving actions targeted at reducing food waste, while facilitating a more positive relationship with food. Such actions involve multiple connections among stakeholders (alternatively involved as caregivers or care recipients), the dimensions of the FWB model, and the loci where the care is enacted. Table 3 offers a summary of these findings and additional evidence.

Discussion

By focusing on world-renowned chefs and their caring actions around food waste, this study combines insights from food waste, FWB, and caring domains to obtain a deeper understanding of FWB and how it can be achieved. Our contribution is twofold. First, we respond to Block et al.’s (2011) call for more research to provide a richer and more complex view of the multiple facets of FWB. Second, we reveal the role of care in enhancing FWB and introduce the concept of a web of care to address societal issues.

FWB and Industry Layer

Our study highlights the importance of various industry stakeholders in enhancing FWB. Whereas most of the current food initiatives and policies target consumers, our study promotes the role of stakeholders who occupy prominent positions in the food supply chain. Chefs who care about food waste and FWB occupy powerful positions that help them perform care actions that can connect other stakeholders.

In line with Voola et al. (2018), who propose an extension of the FWB model by inserting a familial level to account for the food consumption practices of families, we also argue that Block et al.’s (2011) FWB model should include another layer, that is, industry. Having studied chefs, we suggest a

more explicit acknowledgment of powerful industry stakeholders in the FWB model to better capture the multiple roles that these stakeholders can play beyond food marketing and food availability. Industrial, societal, and individual levels are bonded: in fighting food waste, the chefs try to achieve personal well-being not only by transforming their own businesses but also by working on the well-being of consumers, other supply-chain stakeholders, and the food ecosystem as a whole.

Research on FWB focuses on the actions of not-for-profit organizations and consumer activists in tackling food marketing in the marketplace to enhance food availability and to influence food policy (Bublitz et al. 2019; Gollnhofer 2017; Parsons et al. 2021). Our study draws attention to the actions of stakeholders from for-profit businesses to reveal how strategic business decisions, such as changes in the supply chain or the introduction of creative, sustainable recipes, could also support the promotion of the FWB ethos.

Furthermore, this study emphasizes how FWB dimensions can be intertwined with environmental betterment. While previous studies acknowledge the importance of environmental considerations in achieving FWB (Block et al. 2011), they do not explicitly delineate the relationship among them. Being more sustainable through food waste reduction is a major cause for chefs, which enhances their individual well-being. Simultaneously, some of their caring actions against food waste allow chefs to enhance consumers' sensory experience with food items that were usually thrown away or looked down on, thereby reshaping their experience with food (Mugel, Gurviez, and Decrop 2019). In other words, chefs' caring actions can elevate the value of food items that are usually wasted by highlighting not only the functional but also the experiential aspects of such items.

FWB and Care

The second contribution of our study is the identification of the central role that care might play in achieving FWB. As we emphasized in the literature review, despite its central role, care has not been explicitly acknowledged in the FWB model. Our research depicts care as an underlying aspect of the various dimensions of the FWB model by showing how stakeholders with knowledge and expertise, such as chefs, can identify deficits of care (Tronto 2013) that impede FWB, and then take responsibility to address them and act on them by deploying their status to collaborate with other stakeholders. Figure 2 illustrates the caring process enacted by chefs against food waste to enhance food well-being.

Our study introduces the term "web of care" to refer to chefs' care practices that manifest themselves in a multiplicity of loci of care, and which connect different stakeholders in the food industry to create the type of connections that could potentially facilitate FWB. In addition to representing a multilayered and multitemporal nature (Shaw, McMaster, and Newholm 2016; Shaw et al. 2017), the web of care better captures the relational nature of caring by emphasizing the multiple loci and stakeholders involved in its actualization to attain a public societal goal, such as the fight against food waste. The web of care works

through the interconnections among multiple stakeholders (e.g., chefs, farmers, animal breeders, consumers, the media, academia, and public institutions), who perform various roles as both care-givers and care receivers, in the pursuit of FWB.

We argue that three features prevail in a web of care. First, while care might be triggered by one actor, an interplay of care actions among multiple stakeholders (Shaw et al. 2017; Shaw, McMaster, and Newholm 2016) aligned to attain a common goal (e.g., protecting food heritage by reviving the use of ancient seeds or techniques) is necessary to create industrial and societal change.

Second, in tackling sophisticated problems such as the fight against food waste, care should be provided for all the significant aspects of the problem (e.g., food illiteracy, food supply-chain disfunctions, wasteful food cultures, standards in marketing food). For instance, in our study, chefs have multiple care recipients to address the various deficits of care (Tronto 2013) that impede FWB. Moreover, our findings draw attention to how some care actions operate on multiple FWB dimensions, which are frequently treated in isolation by scholars. In line with Bublitz et al. (2019), caring actions that can reinforce the food literacy–food socialization link may play a key role in the pursuit of FWB. For instance, task simplification helps improve the autonomy and independence of consumers and supply-chain actors, which Mugel, Gurviez, and Decrop (2019) consider a crucial step toward experiencing FWB. Similarly, renewing the link with roots can be useful to inform and educate consumers (food literacy) as they socialize around food (Scott and Vallen 2019).

Third, webs of care work across multiple scales and landscapes of care (Chatzidakis and Shaw 2018; Kastarinen, Närvänen, and Valtonen 2022; Milligan and Wiles 2010). Our study contributes to the understanding of the spatial and scalar context of caring, which is both an underinvestigated and underconceptualized area (Chatzidakis and Shaw 2018). In delineating the webs of care, our study highlights actors who, due to their powerful position in the middle of the supply chain, can stimulate and push the development of these webs of care for various issues. We argue that more importance should be paid to the stakeholders operating between the different macro- and micro-landscapes, focusing on the specific roles that each of them plays in shaping the manifestation of caring.

In summary, the web of care contributes to the call for a better understanding of the relational nature of care and the relationships among different stakeholders (Shaw et al. 2017). In this manner, the web of care could be a useful framework to approach, explore, and achieve an overarching societal objective that connects multiple stakeholders and entails political, ideological, and market dynamics, such as inclusion in the marketplace of consumers experiencing poverty or reduction of the use of plastics in everyday life.

Implications for Policy Makers

For public policy makers, our study implies that the use of care as a lens could support the development of policies to fight food

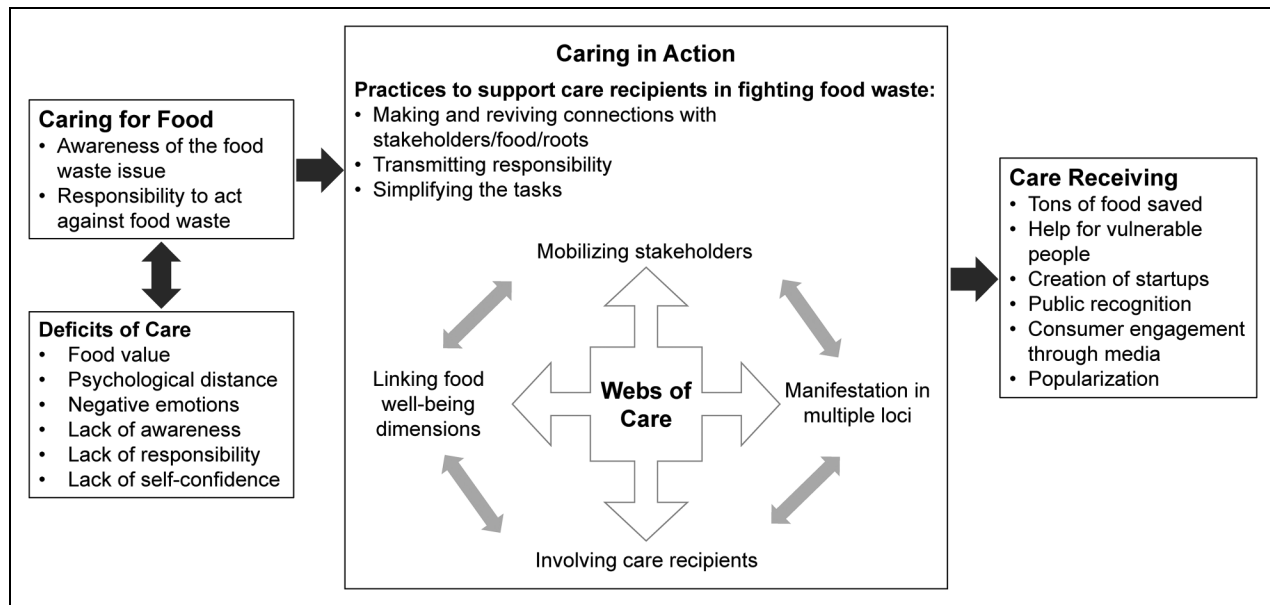


Figure 2. The Caring Process Enacted by Chefs Against Food Waste to Enhance Food Well-Being.

waste and promote FWB. Current guidelines on minimizing the waste of resources tend to be informative and to appeal to rationality. When it comes to food, emotions cannot be excluded, but can indeed be leveraged, as is already the case in other contexts of public interest. Our study highlights the affective component of caring by referring to a wider variety of emotional effects (including removing frustration, diminishing disgust, and facilitating pleasure), an aspect thus far neglected by the literature on caring (Held 2006; Milligan and Wiles 2010; Parsons et al. 2021). Policies highlighting the centrality of the affective component of caring could normalize the feeling of negative emotions, such as guilt and shame about current practices entailing food waste, while stimulating the transformation of these negative emotions into positive emotions (e.g., pleasure).

At the beginning of any caring practice, there is an identification of a care deficit (Tronto 2013). Policy makers should therefore work on the importance of identifying care deficits. One way of achieving this is to identify and work with partners who, depending on the targeted domain (in our study, food), have the capacity to identify care deficits and have the power to act on them. In regard to food, we draw attention to the potential stakeholders located in the middle of the food supply chain; this position was crucial for chefs in our sample to become aware of the deficiencies in the industry, to feel compelled to address and act on them, and to mobilize care in addressing shared problems. As stakeholders, chefs can act with more care than policy makers, who mostly mobilize political power, by legitimizing their claims for responsibility and leadership and by activating a web of care to fight against food waste, while simultaneously strengthening their own brands and businesses in the marketplace. Simultaneously, chefs can exert power and technical know-how more easily than grassroots caring movements can (such as Gollnhofer's [2017] dumpster

divers). In line with previous studies that hint at the relation between care, or ability to care, and power (Chatzidakis and Shaw 2018), our research depicts caring and power as intertwined for the attainment of FWB and, therefore, as two sides of the same coin in bringing about change in the industry.

Current initiatives aim to create awareness of FWB by targeting consumers' sense of responsibility, thereby overlooking the role of other stakeholders (Welch, Swaffield, and Evans 2021). Our study suggests that policy makers could create more impact if they mobilized publicly visible stakeholders at key points along the supply chain. Since digital technologies, such as apps (Harvey et al. 2019), or internet celebrities (McQuarrie, Miller, and Phillips 2013) can influence consumers when making ethical consumption choices and avoiding food waste, the chefs' potential influence strengthens as they extensively mobilize both new and old technologies to reach out to broader audiences. For instance, Bottura's Instagram profile has more than 1.5 million followers. Providing visibility to food waste initiatives is paramount for facilitating the process toward an antiwaste culture. Awards for chefs who mobilize their resources and networks can function as a signal of public institutional support for such initiatives. For instance, awards given to chefs for their engagement in sustainability (i.e., the Sustainable Restaurant Award by "The World's 50 Best Restaurants") attract consumer interest and appreciation: the Instagram post on the green Michelin star awarded to chef Crenn has 8,524 likes. New awards focused on chefs' management of food waste could further increase the visibility of the issue and consumer engagement. However, due to the spiraling rise of different varieties of "washing" (Chatzidakis et al. 2020) and consequent consumer skepticism, it is important to be aware of potential criticism that could surround the perception of the efficiency of these care actions. Therefore, policy makers

could ask: what would make people believe that these actions are not care-washing? While our consumer data reveal some skepticism and criticism of chefs' commitment to food waste, we also found that most consumers praise and trust chefs. Future research may further explore whether and how "washing" perceptions are triggered or investigate the cues of the instrumental use of caring, as has been done in other domains in which "washing" behaviors are common.

Phillipov and Gale (2020) argue that chefs may mislead consumers by failing to account for "the complex realities of ethical food production" (p. 404), or that consumers will need to act "in a much messier, more complex realm than what we see on screen" (p. 414). In our study, we find evidence that chefs occasionally mispredicted or underestimated the constraints in consumers' lives, leading consumers to, at the very least, criticize the feasibility of their suggestions, or even question the motives behind their actions. These cases would occasionally accentuate the power imbalance among the stakeholders, thereby potentially reducing the effect of care actions. Thus, policy makers should be mindful that their partner stakeholders' (in our case, the chefs') recommendations and actions are not perceived as too complex or inaccessible by consumers. Policy makers could provide stakeholders with more insights into the resources and constraints of individual consumers and public institutions to stimulate effective policies.

In comparison with other studies that emphasize official social media channels of policy institutions or other traditional communication channels, we suggest that multiple loci of care (e.g., restaurants, food markets, soup kitchens, and chefs' personal social media accounts) should be put to work. In line with Chatzidakis and Shaw's (2018) call for further attention on the spatial contexts of caring, we emphasize the relevance of physical spatial contexts, such as restaurants, in opening venues where consumers can be more informed, educated, and socialized on food and FWB (Scott and Vallen 2019).

Public authorities can also play a role in facilitating connections and dialogues between the different stakeholders involved in the food industry. Round tables, where stakeholders meet and exchange experiences and problems, could facilitate the emergence of associations aimed at improving the supply chain through cooperation and open dialogue. To better facilitate the dialogue and the sharing of experiences and expertise among stakeholders, care could be a central theme at the round tables. For example, each stakeholder could be asked to provide examples of their own experiences of providing care or feeling cared for within the food supply chain. These reflections can reveal to the stakeholders the multiple roles they play as both caregivers and care receivers, and help them better appreciate other stakeholders' perspectives and positions, to acknowledge mutual dependencies, and stimulate mutually beneficial relationships based on caring.

Finally, our data suggest that consumers, at times, need to be guided step-by-step to fight food waste. Task simplification could therefore be crucial: TV programs and social media channels (e.g., of public institutions, retailers) could be used to show how to process food so as to avoid waste. This would also help normalize the use of leftovers or traditional waste ingredients. Policy makers can collaborate with chefs to design and

deliver workshops or online classes to increase consumer literacy (e.g., how to extend the shelf life of food, how to re-create family recipes with mundane ingredients, how to shop and how to reuse leftovers from meals) for a wider audience rather than a small number of paying customers.

Our study has limitations that point to new research avenues in FWB. Whereas the current data set is suitable for listening to the voices of celebrities, other methods of data collection, such as in-depth interviews, would shed greater light on other phenomena that hinder FWB and reveal other strategies to enhance it. It has also been acknowledged that accessing powerful people who could influence the public requires networking and a certain level of cultural and social capital, thereby limiting access to specific groups of people (Durrer and Miles 2009). Our study may also inspire future research that shifts the focus from chefs to consumers, so as to explore their lived experiences of coping with food waste, and how they mobilize their resources after being challenged by stakeholders who are considered trendsetters and tastemakers, such as celebrity chefs. Previous research in other consumption contexts (Arsel and Bean 2013) has conceptualized the practices that characterize the discursive orchestration of taste regimes. Future studies may explore further whether such practices are also orchestrated in the context of food consumption.

Our study points to food waste as a deficit of care that deserves further research. In line with recent studies that have highlighted food waste as paramount for studying food (Mesiranta, Närviäinen, and Mattila 2022) and FWB (Bolton and Reczek 2022), we argue that food waste is a domain relevant to researchers studying care and/or FWB, and thus deserves more attention. Applying a wide lens of caring to the study of the pursuit of individual and societal well-being and to social causes, such as the reduction of food waste, can contribute to better emphasizing the interdependencies among different stakeholders, and to smoothing power dynamics, in order to more holistically and harmoniously pursue overall societal well-being that benefits human and nonhuman (nature and, in our case, food) actors.

Another research avenue stemming from our study can be devoted to investigating whether and how webs of care can emerge and evolve in contexts wherein stakeholders have diverse or even competing goals. In the context of food waste, multiple stakeholders were aligned to reach a common goal. More studies are needed to understand how webs of care can spread when stakeholders may not share a common view on caring, for instance, in childcare markets, where tensions commonly unfold among parents, grandparents, experts, and other actors.

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