sustainability

MDPI

Article

Product Characteristics and Emotions to Bridge the Intention-Behavior Gap in Green Food Purchasing

Sara de Sio [1], Giulia Casu [1,*], Alessandra Zamagni [2] and Paola Gremigni [1]

[1] Department of Psychology, University of Bologna, Viale Berti Pichat 5, 40127 Bologna, Italy; sara.desio2@unibo.it (S.d.S.); paola.gremigni2@unibo.it (P.G.)
[2] Ecoinnovazione Srl, Via della Liberazione, 6/c, 40128 Bologna, Italy; a.zamagni@ecoinnovazione.it
* Correspondence: giulia.casu3@unibo.it

Abstract: Promoting environmentally friendly behaviors is a pivotal strategy in addressing the climate crisis. The food industry's impact on pollution and resource consumption underscores the importance of fostering eco-sustainable food consumption, which can significantly benefit the environment. However, despite the global surge in green purchase intentions, a noticeable discrepancy persists between these intentions and actual purchasing behavior. This study aimed to investigate the influence of various factors on the likelihood of purchasing green food. An online survey was administered to Italian adult consumers (n = 832, 66% female, aged 18–84 years), collecting sociodemographic data and assessing emotions related to green purchases, perceptions of green food characteristics, intention to buy green food, and frequency of green food purchases. Through cluster analysis, three distinct consumer categories emerged: Coherent Buyers (individuals willing to buy green food and actively doing so), Coherent Non-Buyers (individuals who have no intention to buy green food and do not buy it), and Non-Buyers with Favorable Intentions (individuals expressing willingness to buy green food but not following through with purchases). Results from multinomial logistic regression analysis revealed that several factors influenced the likelihood of being categorized in the other two categories, as opposed to the Coherent Buyers one. These factors included younger age, a lower sense of pride associated with purchasing green products, and considering healthiness, natural content, and eco-sustainability of food less important and familiarity of green food more important. These findings provide valuable insights for marketers and policymakers, facilitating efforts to bridge the gap between green food intentions and behaviors and promote a shift toward a more eco-sustainable dietary pattern.

Keywords: green intention-behavior gap; green purchase-related emotions; product characteristics; green buying behavior

Citation: de Sio, S.; Casu, G.; Zamagni, A.; Gremigni, P. Product Characteristics and Emotions to Bridge the Intention-Behavior Gap in Green Food Purchasing. *Sustainability* **2024**, *16*, 7297. https://doi.org/10.3390/su16177297

Academic Editors: Flavio Boccia and Nadia Palmieri

Received: 5 July 2024
Revised: 15 August 2024
Accepted: 21 August 2024
Published: 25 August 2024

1. Introduction

The climate crisis poses a formidable challenge for current and future generations. Recognizing its urgency, the United Nations designated it a high-priority issue within its sustainable development goals in 2018 [1]. Despite decades of awareness [2], only in recent years have we witnessed increased international institutional recognition and heightened public attention towards this critical topic. As public environmental awareness and concern grows, so does the demand for green products among consumers [3]. This phenomenon, termed "green consumption", involves making purchases that align with environmental conservation for both present and future generations [4]. Examples include opting for organic products, clean and renewable energy sources, and items with minimal environmental impact [5]. Promoting such consumption has proven effective in reducing environmental harm without compromising the quality of the purchase's economic health [6]. However, despite consumers worldwide expressing a growing interest in pro-environmental products, research consistently reveals a gap between intention and

actual buying behavior [5,7,8]. Known as the "green attitude-behavior gap" [9], the "green intention-behavior gap" [10], or the "motivation-behavior gap" [11], this phenomenon presents challenges for both scientific research and policymaking.

The European Commission's Joint Research Center recently highlighted that an individual environmental footprint is primarily influenced by food consumption, housekeeping, and transportation [12]. In this article, we focus specifically on food consumption. While previous research predominantly examined green products in general [6], the increasing emphasis on sustainability warrants targeted investigations within specific products categories. Motivations and factors driving purchase behavior may indeed vary across different products [13]. For instance, use of energy-efficient appliances may be motivated by cost savings [14], while health concerns drive organic food and cosmetics purchases [15,16]. For a comprehensive review refer to Luthra and Deshwal [13].

Defining "eco-sustainable" or "green food" remains contentious due to widespread greenwashing [17] and lack of consensus in the scientific community. Precisely determining what constitutes green food is complex, considering factors such as greenhouse gas emissions, cropland use, freshwater use, and fertilizer-related pollution [18]. For our purposes, we adopted a comprehensive definition: green food encompasses products with features or manufacturing methods that have a lower environmental impact compared to other items in the same category throughout their entire life cycle, from raw material collection to disposal. This definition emerged from the work of Durif and colleagues [19], who meticulously analyzed and compared 35 definitions sourced from academic, industrial, and consumer literature.

1.1. The Role of Eco-Sustainable Diets

Promoting eco-sustainable diets plays a pivotal role in combatting climate change. While the environmental impact of specific food groups varies, it is widely recognized that reducing the environmental footprint of food production necessitates curbing animal-based foods [18], particularly meat consumption. Meat production alone contributes approximately 14.5% of total global greenhouse gas emissions [20]. This holds especially true in countries with high meat consumption (such as the USA and Europe) or rapid expansion (such as China and Brazil) [21,22]. Besides meat, reducing other animal products (such as fish, eggs, and dairy) could significantly lower an individual's carbon footprint by up to 22%, surpassing the impact of most other household actions [23]. Additionally, the livestock industry utilizes 33% of the world's arable land for cattle feed [24]. Redirecting this land to crop cultivation for human consumption could yield 70% more calories [25], potentially feeding an additional four billion people [26], which is more than the expected population growth over the next 30 years [27].

These data underscore our inefficient use of resources, converting a substantial amount of food suitable for human consumption into less efficient and more polluting animal-based products [28]. Adopting a sustainable diet not only benefits the environment but also positively impacts physical health [29] and psychological well-being [30]. A comprehensive study [29] that explored mortality rates related to diet and environmental impact across 150 countries revealed that predominantly plant-based diets promote longevity and reduce the incidence of age-related diseases. Chronic disease-related mortality decreased by 19% for flexitarian diets (including small amounts of animal-source foods) and up to 22% for vegan diets (exclusively plant-based) [29]. Furthermore, energy-balanced, low-meat dietary patterns significantly mitigate environmental impact globally, affecting greenhouse gas emissions, nitrogen and phosphorus application, cropland use, and freshwater consumption [29]. Beyond environmental and public health benefits, evidence suggests that sustainable diets positively impact psychological well-being [29,31]. For instance, recent research found that green food consumption mediates the relationship between perceived consumer effectiveness (the belief that consumers' choices impact the environment [4]) and psychological well-being [31]. When people recognize their choices' tangible contribution

to environmental protection, positive emotions motivate them to engage in green food consumption, enhancing overall satisfaction and well-being [31,32].

While we have highlighted the significant benefits of transitioning to a more sustainable diet for society, the practical question remains: how can governments, marketers, and policymakers effectively encourage sustainable consumer behaviors? A promising starting point lies in profiling consumers, recognizing that different subgroups within the population respond to different inputs [33]. Drawing from the existing literature, we undertook consumer segmentation to identify variables predicting membership in specific categories. By understanding these distinctions, we gain valuable insights into tailoring strategies that promote sustainable choices and drive positive environmental impact.

1.2. Understanding Green Consumers: Segmenting Intention-Behavior Gaps

In recent decades, bibliometric analyses have explored the topic of green consumerism. One persistent research gap identified by these studies is the profiling of non-buyers who express favorable intentions [34]. To address this gap, the authors suggest focusing future research on identifying distinct green consumer segments based on demographic, psychographic, and behavioral characteristics. To do this, it is crucial to recognize the need to study not only consumer characteristics, but to consider their relationship to green purchasing behavior. However, the majority of studies on this topic have mainly examined the characteristics associated with purchase intention. Such an approach would fail to contribute meaningfully to the goal of understanding and intervening in the attitude-behavior gap [4]. Building upon insight from the existing literature, our study aimed to segment green customers based on their purchasing intentions and behaviors. Through a cluster analysis, we categorized consumers into three distinct groups, each representing a different intention-behavior combination. Coherent Buyers are individuals who consistently express willingness to buy green food and follow through with their intentions. Non-Buyers with Favorable Intentions (NBFIs) are people who express willingness to buy green food but do not actually make the purchase. Coherent Non-Buyers are consumers who neither intend to buy nor actually purchase green food. The division into these clusters serves a critical purpose. While Coherent Buyers demonstrate consistent green buying behavior and Coherent Non-buyers are unlikely to change their habits, the NBFI group is the most intriguing one. Addressing the intention-behavior gap among people who are actually causing it, namely NBFIs, becomes essential [10]. Although purchase intention is necessary, it alone does not guarantee actual buying behavior [35]. To comprehensively address the intention-behavior gap among green consumers, it is imperative to conduct specific quantitative investigations into the barriers and facilitators influencing green purchase behavior. This research should particularly focus on the group of NBFIs in order to discern the factors that differentiate them from individuals who consistently align their intentions with actual green product purchases [10]. To delve deeper, our focus was on understanding which consumer characteristics influenced the likelihood of belonging to the three aforementioned categories. Specifically, beyond sociodemographic variables, we also considered emotions related to green food purchase and the perceived importance of certain green food characteristics. By adopting this comprehensive approach, we can delve into the intricate dynamics between intention and behavior, shedding light on the factors that differentiate NFBIs from individuals who consistently act on their green intentions. Ultimately, this endeavor can contribute to a more informed understanding of sustainable consumer choices.

1.3. The Influence of Sociodemographic Characteristics

In our study, we explored the role of several sociodemographic characteristics in relation to green food purchasing behavior. Specifically, we considered the following factors: age, gender, income, education level, and people's involvement in environmental issues. While existing research has extensively explored most of these variables, our investigation uniquely incorporates the environmental involvement aspect. This aspect refers to whether individuals deal with environmental issues in their professional role or at

least through active volunteering. Our underlying hypothesis posits that individuals who are actively involved in environmental topics will predominantly fall into the Coherent Buyers category. As a matter of fact, they are likely well-informed about environmental matters and previous studies have shown a clear link between environmental knowledge and both green consumption intention and behavior [36,37], particularly concerning green food choices [38].

In the existing literature, considerable attention has been devoted to exploring the variations in green purchase attitudes and preferences across diverse population segments. Notably, Wijekoon and Sabri [39] conducted an extensive literature review in this domain; however, limited research has specifically focused on green food preferences. Research consistently indicates that consumers with higher educational attainment [40–42] and income levels [42,43] exhibit greater willingness to purchase green food products and are more likely to prioritize environmentally conscious choices when shopping. The impact of gender remains inconclusive. While some studies suggest that women are more inclined to pay for and consume green and organic foods [44–46], other findings do not establish gender as statistically significant [47,48]. The relationship between age and green purchasing behavior is multifaced. Some studies identify older consumers as more receptive to eco-sustainable products [44,49], while others find no significant age differences [50–52].

1.4. The Role of Emotions in Green Food Purchasing Behavior

Emotions play a pivotal role in shaping human behavior, a consensus that is well-established across various domains [53]. In the realm of advertising, the traditional focus on rational consumer choices has long given way to an emotionally driven marketing approach [54]. Scientific literature underscores the direct influence of emotions on customer behavior, particularly in the context of green purchasing [55,56]. Scholars have explored the relationship between green consumption behavior and a spectrum of emotions, including guilt [57], pride [58], regret [59], and fear [60]. In a study conducted by Wang and Wu [56], the influence of four distinct emotions—namely, pride, respect, guilt, and anger—on consumers' intentions to select environment-friendly household appliances was examined. The results revealed that all four emotions positively influenced consumers' intentions to choose environment-friendly items, but pride emerged as the most potent influencer, as individuals experiencing it were significantly more inclined to make environmentally conscious purchase decisions.

In our study, we aimed to extend existing findings by examining how these four emotions specifically relate to green food consumption. By exploring the predisposition to experience these emotions in the context of buying or not buying green food, we sought to uncover their impact on categorization into the NBFI group, the Coherent Buyers group, or the Coherent Non-Buyers group. These emotions refer to the compliance with or the violation of a personal or social norm [61], formed on the basis of ethical standards [62]. In the context of green purchasing, they are elicited both when individuals themselves (pride and guilt) and others (respect and anger) make or refrain from eco-sustainable food purchases.

Let us now delve into a more detailed analysis of these four emotions. Pride is a positive emotion associated with self-worth that motivates behaviors aligned with personal values and goals [63]. Previous research showed its positive influence on consumer purchases of sustainable products [64] and sustainable travel behaviors [65]. Guilt is a negative emotion arising from perceived responsibility for negative outcomes [66]. Chen [67] found that if people feel responsible for the negative impact of behaviors on the environment, they will be more likely to put an effort into adopting energy-saving and other ecological behaviors. Respect is a positive emotion that emerges when individuals genuinely recognize and admire others for their achievements, merits, or moral qualities [68]. Although limited research has explored its impact on consumption behavior [56], respect may significantly influence sustainable choices. When someone respects others who exhibit sustainable

consumption behavior, they are more likely to emulate such behavior themselves. Anger is a negatively valenced basic emotion that serves an adaptive function. Witnessing violations of moral standards, such as environmentally harming behavior, can trigger anger [69]. Previous studies have shown that anger and indignation in response to environmental damage motivate people to adopt ecological behaviors [70,71]. In summary, consumers experience pride for themselves and respect for others when they are in line with a moral value (i.e., safeguarding the environment by adopting sustainable consumption behavior). Conversely, they feel guilty and angry with other people when this ideal prescription is violated.

1.5. Consumer Food Choice Motives

Consumer food choices have been extensively studied, drawing on traditional variables such as those from the theory of planned behavior [72] (i.e., attitudes, social norms, perceived behavioral control) and socio-demographic factors [73–75]. However, beyond these characteristics, researchers seek to unravel the product features most influential in consumers' decisions to select and consume specific items. Food choice motives represent consumers' underlying reasons for their food preferences and consumption patterns [74]. The complexity of understanding food choices arises from different factors at play, including consumer characteristics and cultural context [75]. Adding to this complexity is the multidimensionality of sustainability, which encompasses social, environmental, and economic dimensions [74]. Assessing an item's sustainability involves considering elements such as water usage, animal welfare, food healthiness, local and seasonal production, and ethical working conditions [76].

Recognizing the importance of understanding consumers' motivations, particularly in sustainable food consumption, numerous studies [77,78] underscore the need for insights into these drivers. While factors like environmental consciousness can promote sustainable dietary decisions, perceived barriers (such as sustainable options being less appetizing or convenient) also exist [79]. Furthermore, distinct categories of sustainable food preferences may arise from varying underlying motivations [77]. The existence of potential conflicts and trade-offs among various food choice drivers underscores the need to explore sustainability motivations within the broader context of influences on food choices [80]. Steptoe and colleagues [81], along with Onwenzen [74], identified nine key food choice motives: health, mood control, convenience, sensory appeal, natural content, price, weight control utility, familiarity, and ethical concerns. Health relates to choosing foods based on their perceived impact on health. People may prioritize foods that are nutritious, low in calories, or have specific health benefits. Mood control refers to selecting foods to regulate one's mood. For example, comfort foods (like chocolate) are often chosen to improve emotional well-being. Convenience plays a significant role in food choice. For example, busy lifestyles lead people to opt for quick and easy meals or snacks. The sensory experience of food—its taste, texture, aroma, and appearance—influences people's choices, leading them to prefer foods that are pleasurable to their senses. Natural content refers to the desire for foods that are minimally processed or closer to their natural state, like organic, whole, or locally sourced foods. Economic considerations, such as price, play a crucial role in food choices since people often balance taste and nutrition against cost. Individuals concerned about weight management may choose foods based on their impact on weight, including both weight-loss and weight-maintenance goals. Familiarity with certain foods can drive choices, because people often stick to what they know and trust. Finally, ethical concerns refer to ethical factors that can drive food choices like environment friendliness, animal welfare, and fair-trade practices. These nine choosing motives were employed to uncover patterns across various consumer subgroups. For instance, researchers have utilized these motives as a foundation for consumer segmentation, aiming to identify homogeneous groups [82–84]. In our study, we explored different consumer subgroups by incorporating food choice motives. This allowed us to gain insights into the perceived

product characteristics that hold particular significance for environmentally conscious consumers, aligning with their attitudes.

2. Materials and Methods

2.1. Participants and Procedure

This research employed a cross-sectional design. Participants were recruited using an exponential, online snowball sampling method, leveraging the personal networks of the researchers to maximize outreach in a cost-effective manner [85,86]. The non-probabilistic sampling strategy, also known as "online network sampling", is commonly used in marketing survey research whenever the development of a sampling database of the target population is difficult or not possible to achieve by the researchers. To mitigate errors associated with this sampling method, researchers randomly selected individuals from their networks. In addition, the recruitment was limited to 20 for the researchers and to 10 for the respondents to minimize differential recruitment (where respondents with a large size of network may recruit a large number of persons with potentially similar characteristics). Potential participants received a link to an anonymous online survey with instructions to complete the questionnaires via email and private messages. Inclusion criteria included being 18 years or older and having access to food purchasing opportunities. For accurate segmentation analyses [87], the sample size aimed for 100 times the number of clustering variables (in this case four), resulting in a comfortably met goal of more than 400 participants.

2.2. Measures

The survey consisted of two main sections: a demographic section and a study variables section. In the demographic section, we collected information on age, gender, educational level, household monthly income, and active involvement in ecological issues. All questions, except for age, were close-ended and of the multiple-choice kind.

Before presenting the study variables, we provided participants with an explanation of what "green food" entails in our study to avoid confusion. The definition we provided was as follows: "A green product has characteristics or production methods that cause less damage to the environment throughout its life cycle (from production to end of life) compared to other products of the same category. For example, it uses renewable energy sources, non-toxic and/or biodegradable substances, is grown with organic methods, produced locally, is packaged with recyclable materials, etc." [88].

To assess the targeted constructs, we predominantly adopted scales from existing consumer research [89]. Our criteria for scale selection included relevance to focal constructs, psychometric robustness (e.g., acceptable/good reliability), and brevity to encourage higher response rates and survey completion [90]. We did not assess social desirability bias due to exiting literature suggesting its negligible impact on sustainable behavior studies [81]. To ensure cross-cultural equivalence, the scales were adapted and independently translated from English into Italian, with subsequent back-translation by two academic bilingual speakers. Reliability was evaluated within the study sample. Participants answered questionnaires using a 5-point scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"), except for the two questions developed to assess green food purchase behavior.

We assessed green food purchase behavior using the following questions: "I often buy green food", with a 5-point response scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"), and "How much green food did you buy last week?", with a response scale ranging from 1 to 10, in which participants had to indicate the actual number of green food items they bought in the last seven days. Reliability of this two-item scale was acceptable ($\alpha = 0.76$).

We measured participants' intention to buy green food with two items developed by Soyez [91] by substituting the original term "organic food" with "green food". Reliability for this two-item scale in our sample was optimal ($\alpha = 0.94$).

We employed a 12-item scale developed by Wang and Wu [56,65] to measure emotions related to green purchasing behavior; specifically, pride, respect, guilt, and anger. With approval of the authors, we adapted this scale shifting the focus from conserving household appliances to purchasing green food. The validation of this Italian version showed good psychometric properties in an independent sample of 865 Italian consumers with good CFA indexes (RMSEA = 0.07; SRMR = 0.04; CFI = 0.98) for the four-factor solution, good reliability (ω values between 0.90 and 0.93), and invariance across groups [92]. In the present study, McDonald's omega varied between 0.91 and 0.93.

We used a short version of the Food Choice Questionnaire (FCQ) [74,81,93] to measure the motivations behind food choices. The original 9-factor, 36-item FCQ [81] assessed health and non-health related food characteristics across 9 motivational dimensions or food choice motives. These dimensions included health, mood, convenience, sensory appeals, natural content, price, weight control, familiarity, and ethical concern. The original FCQ was cross-validated among Italian, Belgian, and Canadian samples [94], demonstrating good validity and reliability. Consequently, the content of the items can be considered cross-culturally valid. Subsequently, a single-item FCQ, comprising 9 items, was developed [74] and cross-culturally validated at international level, showing good convergent validity with the original multi-item scale. To streamline the scale, the ethical concern dimension, previously considered limited in scope [95], and items related to mood control and sensory appeal, due to questionable validity [74], were excluded. Reliability of the short FCQ was not calculated, as it consists of individual items measuring different aspects, treated individually. Previous studies, e.g., [74], recommended using the short FCQ as a context-specific measure to explore food choice motives in relation to specific food categories.

For detailed information on each scale, including item content, reference, and reliability, refer to Table 1.

Table 1. Constructs, references, items of measures and reliability indexes.

Constructs and Reference	Items			Reliability
Intention to buy green food [93]	1. If I buy groceries next time, I will also buy green food. 2. I intend to buy green food next time.			α = 0.94
Green Food Purchase Behavior	1. I often buy green food. 2. How much green food did you buy last week?			α = 0.76
Emotions Related to Green Food Purchase [56,65]		Pride	When I purchase green food, I would… 1. Feel satisfied. 2. Feel worthwhile. 3. Feel proud.	ω = 0.90
		Respect	When people purchase green food, I would… 4. Admire them. 5. Appreciate them. 6. Respect them.	ω = 0.93
		Guilt	When I purchase non-green food, I would… 7. Feel guilt. 8. Feel remorseful. 9. Feel bad.	ω = 0.92
		Anger	When people purchase non-green food, I would… 10. Feel resentment. 11. Feel disdain. 12. Feel angry.	ω = 0.91

Table 1. *Cont.*

Constructs and Reference	Items	Reliability
Food Choice Questionnaire (FCQ) [74,81,95]	It is important to me that the food I eat on a typical day is . . . 1. Healthy. 2. Convenient (in buying and preparing). 3. Natural. 4. Affordable. 5. Helping me control my weight. 6. Familiar. 7. Environmentally friendly.	*

α = Cronbach's alpha; ω = MacDonald's omega. * We did not calculate the reliability of the FCQ because it is composed of individual items measuring different aspects, which we treated individually (see, for instance [96]).

2.3. Ethical Consideration

The survey conducted in this study involved human participants and received approval from the Ethical Research Committee of the University of Bologna (protocol number 0090636), adhering to ethical standards. Consumers participated voluntarily and granted explicit consent at the outset of the online anonymous survey, following the reading of an informed consent statement outlining the study's objectives.

2.4. Data Analysis

We described the characteristics of the participants using descriptive statistics.

We assessed the reliability of the questionnaires using either MacDonald's omega or Cronbach's alpha, depending on the availability or non-availability of factor loadings. Acceptable reliability values were considered to be greater than 0.70.

We conducted a two-step cluster analysis with a fixed number of clusters set at 3, using as grouping variables items related to intention to buy green food and green food purchase behavior. Our decision to use these specific measures was driven by their relevance to the green attitude-behavior gap. These variables allowed us to define meaningful segments, which we later profiled in terms of sociodemographic and other characteristics. We selected 3 clusters based on our assumption and existing literature, expecting to find Coherent Buyers, Coherent Non-Buyers, and a cluster representing NBFIs. Two-step cluster analysis started by initially pre-clustering cases into numerous small sub-clusters using a sequential clustering algorithm. Subsequently, these nearby sub-clusters were recursively merged using an agglomerative hierarchical clustering algorithm to arrive at the final cluster solution. The number of clusters was based on the log-likelihood distance measure between clusters and Schwarz's Bayesian information criterion (BIC). The distance measure we adopted was the log-likelihood distance. The goodness of fit of the cluster solution was evaluated using the silhouette coefficient, which compares the average within-cluster cohesion with the average between-cluster separation. Silhouette coefficient values falling between 0.20 and 0.50 suggest a fair fit, while values of 0.50 or higher indicate a good fit [97]. To validate and interpret the cluster solution, we conducted ANOVA analyses to assess whether the grouping variables exhibited significant differences across clusters. To assess the stability of our clustering solution, we replicated the two-step cluster analysis using a randomly selected 50% subsample of cases [98]. Additionally, to explore the potential sampling selection bias, we conducted separate two-step cluster analyses within two subgroups based on sociodemographic characteristics that distinguished our sample composition from the target population.

Subsequently, we performed a series of preliminary ANOVAs and chi-squared tests to identify sociodemographic variables that varied significantly between different segments. These variables were later incorporated, along with those related to emotions associated with green food purchase and food choice motives, in a multinomial logistic regression. The goal was to determine which factors could influence the likelihood to belong to the three

identified clusters. We examined the residuals and tested for potential multicollinearity problems in logistic regression analysis using the Variance Inflation Factor (VIF). Standardized residuals between −2 and +2 are considered still acceptable [99], and VIF values < 5 indicate that independent variables are not highly correlated [99]. The Coherent Buyers segment was set as the reference category. The goodness-of-fit of the logistic regression model was evaluated using the model χ^2, Pearson and deviance tests, and Nagelkerke Pseudo-R^2. A significant χ^2 indicates that the model, along with its independent variables, fits the data better compared to one lacking those variables. Non-significant Pearson and deviance tests suggest negligible disparities between the observed and predicted probabilities. Nagelkerke R^2 values exceeding 0.20 indicate an acceptable level of explained variability [100]. Odds ratios (OR) and corresponding 95% confidence intervals (Cis) were provided for each independent variable. Interpretation of results was based on both statistical significance ($p < 0.05$) and effect size. For effect size, η^2 values of 0.01, 0.06, and 0.14 were categorized as small, medium, and large, respectively, and Cramer's V of 0.10 was considered small, 0.30 medium, and 0.50 large.

Statistical analyses were performed with IBM SPSS v.25 [101].

3. Results

3.1. Sample Characteristics and Descriptive Statistics

The total sample (n = 832) consisted of 66% female participants. The mean age was 34 years (*SD* = 14.73, range 18–84). All participants met the inclusion criteria, indicating that they personally purchased food at least occasionally. According to the Italian educational system, 12% of the participants had a low level of education (5–8 years), 37% held a high school diploma (12–13 years), and 51% had attained a university degree or higher (master's/Ph.D.). In terms of household monthly income, 8% reported earning less than 1000 euros, 58% earned between 1000 and 3000 euros, 24% earned between 3000 and 5000 euros, and 10% earned more than 5000 euros per month. Finally, 22.6% of participants declared to be actively involved in environmental issues by working or volunteering. In the subsequent analyses, the sociodemographic categorical variables were dichotomized as follows: education was considered higher for individuals with a university degree, and income was considered higher if above 3000 euros per month.

Compared with the Italian adult (18 years of age or higher) general population, in our sample females were slightly non-significantly overrepresented (66% vs. 51.3%; z-statistic = 1.66, $p = 0.09$), while the level of education was largely higher (people with university degree was 51% vs. 20.1%). The other characteristics were comparable with those of the Italian adult general population. Selection bias can occur when a study sample differs from the target population due to non-random participation in the study. In our study, having a higher level of education could have influenced the probability of participants being selected into the sample. To investigate the impact of potential selection bias, we performed a sensitivity test using subgroup analysis. Specifically, we conducted separate cluster analyses for lower and higher educated subsamples to assess whether results varied across different educational levels.

3.2. Cluster Analysis Based on Green Food Purchase Intention and Behavior

The three-segment solution identified by the two-step cluster analysis in the entire sample is presented in Figure 1 and in Table 2. The average silhouette coefficient of 0.40 indicates a fair-to-good level of both cohesion and separation within the clusters. Additionally, the ratio between the largest and smallest clusters was 1.79, demonstrating balanced cluster sizes. The first cluster (n = 246), comprising 29.6% of consumers, exhibited a high intention to buy green food and consistently engaged in frequent green food purchases. We named this cluster "Coherent Buyers". The second cluster (n = 210), representing 25.2% of consumers, consistently scored low in both intention to buy green food and actual buying behavior. We referred to this segment as "Coherent Non-Buyers". The third and largest segment (n = 376), accounting for 45.2% of respondents, reported a high intention to

buy green food but demonstrated low purchase behavior. We identified this segment as "Non-Buyers with Favorable Intentions" (NBFIs).

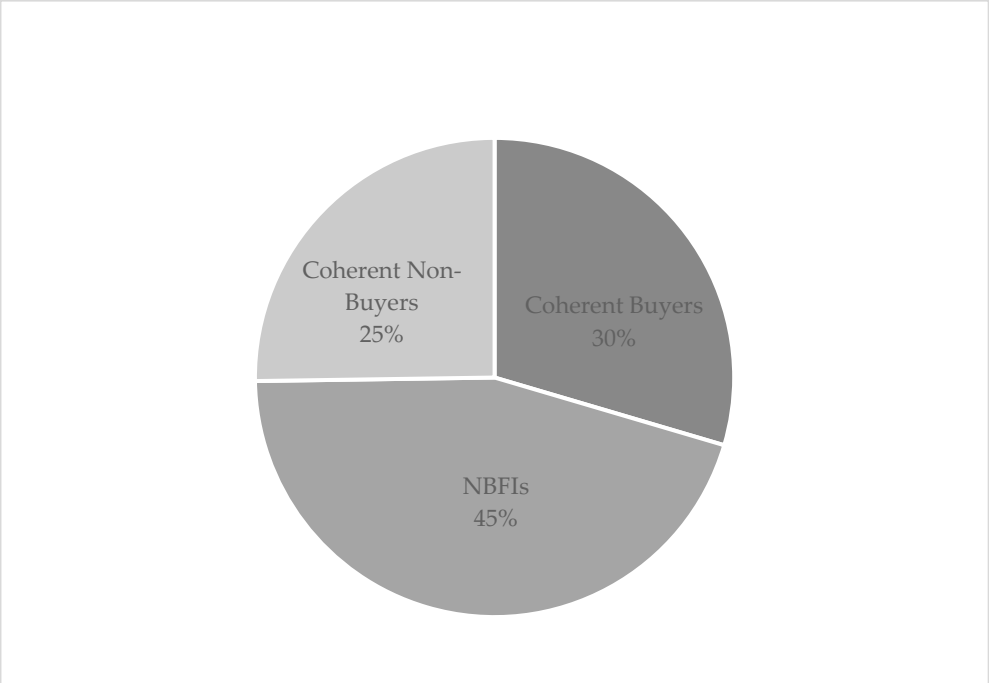

Figure 1. Cluster solution (n = 832), Coherent Buyers (n = 246), Non-Buyers with Favorable Intentions (NBFIs, n = 376), Coherent Non-Buyers (n = 210).

Table 2. Segments of consumers on the segmentation variables (n = 832).

	Coherent Buyers (n = 246)	**NBFIs (n = 376)**	**Coherent Non-Buyers (n = 210)**	**Segment Differences**
Items	Mean score (standard deviation)			$F_{2,829}$ (η^2)
Intention 1	4.91 (0.30)	4.00 (0.61)	2.45 (0.78)	1824.373 * (0.69)
Intention 2	4.94 (0.24)	4.12 (0.64)	2.50 (0.74)	1738.631 * (0.68)
Purchasing	7.12 (2.05)	3.92 (2.28)	1.30 (1.63)	1015.906 * (0.55)
Frequency	4.48 (0.62)	3.38 (0.81)	2.22 (0.79)	905.583 * (0.52)

Intention refers to intention to buy green food [92]; Purchasing and Frequency refer to purchasing green food. NBFIs = Non-Buyers with Favorable Intentions. * $p < 0.001$.

All comparisons between segments on the segmentation variables, conducted through one-way ANOVA, were significant at $p < 0.05$, with medium effect sizes (see Table 2).

Results of the replication of the two-step cluster analysis with a randomly selected 50% of cases resulted in a comparable segmentation solution, as shown in Figure 2, indicating that the three-segment cluster solution had acceptable stability.

The results of cluster analyses conducted *separately* in the two subsamples based on *level of education* (lower educated n = 408; higher educated n = 424) *were as follows:* Coherent Buyers were 36% among people with lower education and 37.4% among those with higher education; Coherent Non-Buyers were 18% vs. 17.4%; and NBFIs were 46% vs. 45.1%. Overall, the clustering results based on education level closely resembled the solution obtained from the random 50% subsample and were not largely different from the total sample results. It appeared that the three-segment solution remained consistent across different educational subgroups within our sample.

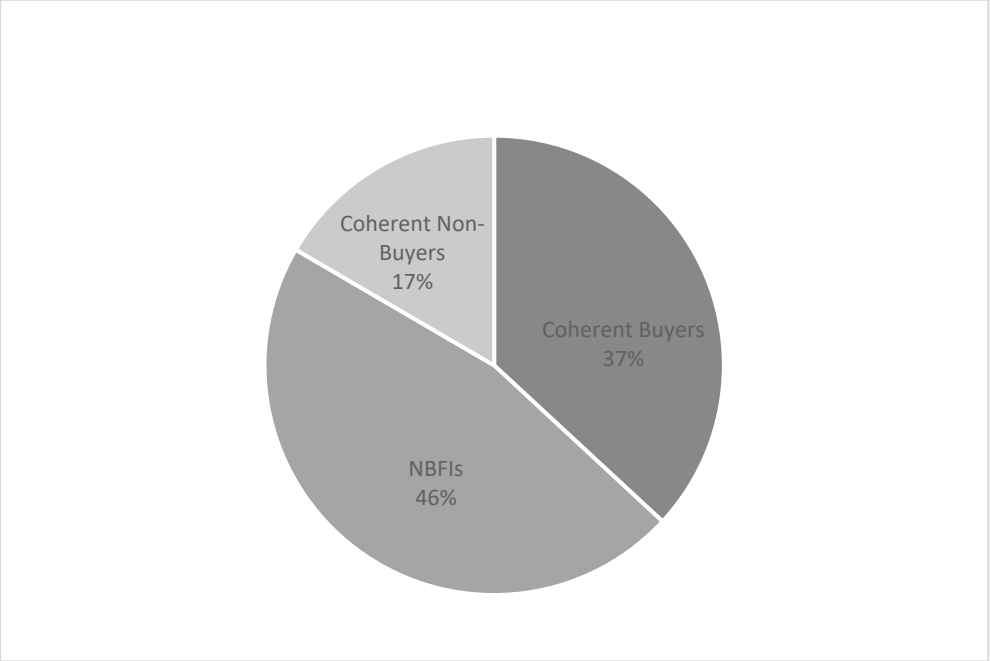

Figure 2. Stability test: cluster solution with a randomly selected 50% of cases (n = 416).

3.3. Profiling of the Clusters

In the multinomial logistic regression analysis, we used cluster membership as the outcome variable. The Coherent Buyers segment served as the reference category. The psychological variables included in the logistic regression were as follows: pride when buying green food, guilt when not buying it, respect when other people buy green food, anger when they don't buy it, and motives to choose green food based on its characteristics such as healthiness, convenience, natural content, price, weight control function, familiarity, and eco-sustainability.

We also preliminarily explored if sociodemographic variables were significantly associated with the outcome variable to enter them into the regression model. We explored the sociodemographic differences between the three groups with one-way ANOVA for age and chi-square test for the categorical variables (Table 3). ANOVA for age indicated significant differences between groups ($F_{2,830}$ = 19.540, $p < 0.001$, $\eta^2 = 0.45$). Specifically, based on post-hoc tests with Bonferroni correction, the Coherent Buyers group (M = 38.87; SD = 16.81) was significantly ($p < 0.001$) older than both the NFBI (M = 33.22; SD = 13.94) and the Coherent Non-Buyers groups (M = 30.82; SD = 12.00). Table 3 reveals significant differences between the groups concerning gender and involvement in environmental issues. Within the Coherent Buyers group, there were more females and more individuals working or volunteering in the environmental field (referred to as "involvement") than in the Coherent Non-Buyers group. However, these differences were not observed when comparing the Coherent Buyers group with the NBFI group.

Table 3. Sociodemographic differences between the clusters.

	Coherent Buyers	**NBFIs**	**Coherent Non-Buyers**	**Segment Differences**
Characteristic	n = 246 (29.6%)	n = 376 (45.2%)	n = 210 (25.2%)	$\chi_1{}^2$ (Cramer's V)
Gender (female)	174 (70.7%)	259 (68.9%)	117 (55.7%)	13.764 * (0.13)
Income (high)	86 (35.0%)	133 (35.4%)	69 (32.9%)	395 (0.22)
Education (high)	138 (56.1%)	212 (56.4%)	129 (61.4%)	1.71 (0.04)
Involvement (yes)	73 (29.7%)	90 (23.9%)	25 (11.9%)	21.158 ** (0.16)

NBFIs = Non-Buyers with Favorable Intentions. Involvement = having a job related to ecological issues or actively volunteer on this filed. * $p < 0.01$; ** $p < 0.001$.

The sociodemographic variables to be entered into the subsequent logistic regression model included age, gender, and involvement in ecological issues since they were significantly associated with the outcome variable.

The results of the multinomial logistic regression analysis are presented in Table 4, and VIF values for multicollinearity are presented in Table 5.

Table 4. Multinomial Logistic Regression of segments on sociodemographic and emotional variables and product characteristics preferences.

	NBFIs (n = 376)		**Coherent Non-Buyers (n = 210)**	
Independent Variable	B (S.E.)	OR (95% CI)	B (S.E.)	OR (95% CI)
Sociodemographic variables				
Age	−0.01 (0.01) *	0.97 (0.97–1.00)	−0.01 (0.01)	0.98 (0.97–1.00)
Gender	−0.02 (0.21)	0.98 (0.65–1.48)	−0.37 (0.27)	0.69 (0.40–1.19)
Involvement	−0.06 (0.21)	0.94 (0.62–1.42)	−0.60 (0.32)	0.55 (0.29–1.03)
Emotional reactions related to green food purchase				
Guilt	−0.04 (0.02)	0.96 (0.92–1.01)	−0.06 (0.03)	0.94 (0.88–1.01)
Pride	−0.09 (0.03) *	0.92 (0.86–0.98)	−0.23 (0.04) **	0.79 (0.73–0.86)
Anger	0.001 (0.02)	1.00 (0.95–1.05)	0.02 (0.04)	1.02 (0.95–1.10)
Respect	0.04 (0.03)	1.04 (0.99–1.10)	0.02 (0.03)	1.02 (0.96–1.09)
Product-related preferences				
Healthiness	−0.21 (0.11) *	0.81 (0.66–1.00)	−0.27 (0.13) *	0.76 (0.59–0.98)
Convenience	0.07 (0.06)	1.07 (0.95–1.21)	0.18 (0.09) *	1.20 (1.00–1.42)
Natural	−0.31 (0.08) **	0.73 (0.63–0.85)	−0.62 (0.10) **	0.54 (0.44–0.66)
Price	0.04 (0.07)	1.04 (0.91–1.19)	0.19 (0.09) *	1.21 (1.00–1.45)
Weight Control	0.09 (0.06)	1.10 (0.97–1.27)	0.06 (0.08)	1.06 (0.90–1.24)
Familiarity	0.14 (0.06) *	1.15 (1.02–1.30)	0.16 (0.08) *	1.18 (1.00–1.39)
Eco-sustain.	−0.47 (0.09) **	0.62 (0.52–0.75)	−0.81 (0.12) **	0.44 (0.35–0.56)

SE = standard error, OR = odds ratio, CI = confidence interval. Involvement = having a job related to ecological issues or actively volunteering on this field. Reference category = Coherent Buyers. * $p < 0.05$; ** $p < 0.001$.

Table 5. Multicollinearity Diagnostics.

Variable	**Tolerance**	**VIF**
Age	0.887	1.128
Gender	0.946	1.057
Pride	0.731	1.368
Guilt	0.757	1.321
Anger	0.758	1.319
Respect	0.708	1.412
Involvement	0.966	1.035
Healthiness	0.784	1.276
Convenience	0.877	1.140
Natural	0.818	1.222
Price	0.827	1.209
Weight Control	0.787	1.270
Familiarity	0.837	1.195
Eco-sustain.	0.781	1.280

VIF = Variance Inflation Factor.

The regression model explained 49% of the variability (Nagelkerke Pseudo-R^2 = 0.49), with an acceptable fit model (χ^2 = 470.508, $p < 0.001$; Pearson χ^2 = 1520.552, p = 0.970; deviance χ^2 = 1304.490, p = 1.00). Both residuals (see Table 4) and VIF values (see Table 5) were acceptable.

Focusing on our primary comparison—the one between NBFIs and the reference category (Coherent Buyers)—which addresses the green attitude-behavior gap, we observed the following:

1. NFBIs vs. Coherent Buyers: younger individuals, and those who feel less pride for buying green food and place less importance on healthiness, natural content, and eco-sustainability, while prioritizing familiarity of food, were more likely to be categorized as NBFIs.
2. Coherent Non-Buyers vs. Coherent Buyers: those who feel less pride for buying green food and prioritize convenience, price, and familiarity of food, while placing less importance on healthiness, natural content, and eco-sustainability, were more likely to be categorized as Coherent Non-Buyers.

4. Discussion

The present study contributed to a better understanding of the typologies of eco-sustainable food consumers by dividing them into three clusters that substantially differ according to green food purchase intention and behavior: Coherent Buyers, Coherent Non-Buyers and Non-Buyers with Favorable Intentions (NBFIs). Moreover, we described the three identified segments according to demographic factors, emotional reactions related to green purchase behavior, and food choice motives.

In terms of sociodemographic characteristics, the present study confirms what is stated in other research: older age was associated with environmentally-friendly choices [43,48]. We extended this finding to the specific domain of green food. However, contrasting studies suggest that this trend may vary based on cultural and socio-economic contexts, highlighting the need for more nuanced understandings [39]. In addition, and in line with previous research's contradictory results concerning socio-demographic features in eco-friendly purchase behavior [47,48], income and education level did not significantly differ between consumer clusters. This lack of significant difference might suggest that green purchasing behaviors are becoming less dependent on socio-economic status, possibly due to increased availability of green products or shifts in cultural norms. Further research could explore whether this trend holds across different contexts or if specific barriers still exist for lower-income groups. Interestingly, more females were found in the Coherent Buyers and NBFI groups, though gender was not a decisive factor in the subsequent profiling of the segments. Furthermore, in the groups with favorable intentions (Coherent Buyers and NFBIs), we observed a higher proportion of individuals with jobs or volunteer activities related to environmental issues compared to the Coherent Non-Buyers group. This supports our hypothesis that these individuals may be more aware of the environmental consequences of their dietary choices. However, this characteristic was not decisive in the profiling of the segments. We invite future research to consider this novel variable we introduced in order to further validate these findings.

In relation to emotions related to green food purchases, we found that lower levels of pride when consuming green food were associated with a higher likelihood of being categorized as NBFIs or Coherent Non-Buyers compared to Coherent Buyers. This result extends the positive influence of pride, as shown in previous research on consumer's purchase behavior [63,64], specifically to green food choices. With regards to food choice motives, we found that a lower emphasis on health and sustainability motives (which include healthiness, natural content, and eco-sustainability) and a higher perception of familiarity of food are linked to a greater likelihood of being classified as NBFIs or Coherent Non-Buyers, rather than Coherent Buyers. A higher level of ease and accessibility motives, encompassing convenience and price, increased the odds of being classified as Coherent Non-Buyers, rather than Coherent Buyers.

Bringing these results together, we can describe the three typologies of eco-sustainable food consumers we found. The first cluster, Coherent Buyers, primarily consists of individuals who take pride in purchasing green food. They also highly value the healthiness, natural content, and eco-sustainability of the food they choose. This finding aligns with previous research that identified the experience of pride as a predictor of green purchase behavior [64,65]. Additionally, the emphasis on healthiness, natural content, and eco-sustainability is consistent with the existing literature. These three factors, collectively

referred to as "health and sustainability motives" [102], are interconnected [79] and associated with higher consumption of organic food products [103]. The second cluster, Non-Buyers with Favorable Intentions, comprises individuals who prioritize the familiarity of food. This aligns with the previous literature that has negatively associated valuing food familiarity with indicators of diet sustainability [102]. The third cluster, Coherent Non-Buyers, consists of people who place greater importance on convenience, price, and food familiarity. This finding is consistent with earlier research that referred to these three variables as "ease and accessibility" motives and found them to be negatively associated with indicators of diet sustainability [102].

As we can observe from the results of this study, it is clear that although purchase intention is a fundamental step towards sustainable buying, it alone will not lead to actual buying behavior in most cases. The green attitude-behavior gap is a phenomenon that requires researchers to move beyond the classic theory of planned behavior (TPB) [72], which is the most used model in the literature on consumer purchase behavior. This model posits that attitudes, subjective norms, and perceived behavioral control contribute to create behavioral intentions, which in turn will lead to the corresponding behavior. However, as we have already mentioned, purchase intention alone has proven insufficient for a large number of consumers. Several studies on ethical purchasing have found that only 30% of behavior variance can be attributed to intention and perceived behavioral control [104,105]. Understanding food choices, particularly sustainable diets, is complex due to a multitude of contributing factors that go beyond the classic TPB, such as socio-demographic factors, attitudes, values, norms, consumption contexts, and cultural contexts [75]. Insights into food choice motives and emotions related to food purchases offer additional value in understanding dietary choices, beyond the abovementioned factors [56,78]. In this study, we have further explored these two variables specifically within the context of green food. Future research should continue to focus on specific product categories to gain tailored insight that addresses the green attitude-behavior gap, extending the TPB with novel variables customized to the study subject. In summary, this research not only contributes to filling the existing gap in the literature regarding the profiling of green customers [34], but also aims to identify differences between coherent green food buyers and individuals who express an intention to buy green food but do not follow through. Understanding these distinctions is crucial for addressing the intention-behavior gap, specifically within the context of eco-sustainable food choices.

4.1. Limitations

There are several limitations that need to be acknowledged in this study. The non-random sampling approach used, while cost-effective, may have introduced biases. By relying on personal networks and referrals, we might have overlooked isolated community members or unintentionally favored subgroups with shared characteristics or interests. For example, not everyone has equal access to the Internet or digital devices. Respondents may have preferably referred individuals with similar characteristics, including educational level or interest in the study topic. It is also plausible that individuals who were already interested in environmental issues were more motivated to participate in the online survey [106]. As we observed in our study, research has shown that women and more educated people are generally more likely to participate in online surveys than men and lower educated people [107,108]. These and other potential selection biases should be taken into account when generalizing our findings. While it was not feasible to draw a sample by randomly selecting from the target population due to our lack of access to the list and addresses of all adults in the country, future studies should strive to obtain a more representative sample.

The cross-sectional nature of this study limits our ability to establish causal relationships. Longitudinal studies or experimental designs would provide stronger evidence to understand the dynamics between the intention to buy green food and actual purchasing behavior as well as potential changes in such dynamics. Furthermore, our study captures a

snapshot in time. Seasonal variations, trends, or external events could influence green food behavior differently over time. Besides temporal factors, cultural factors could also influence our study's findings, since green food choices can vary significantly across different regions and societies.

Our study relied on self-reported data, which may be subject to various limitations. While social desirability bias does not appear to be an issue in sustainability research [81], other factors may have influenced participants' responses. Participants might not accurately recall their past behavior, especially when it involves frequent events like food purchases. Objective measures, such as actual purchase records, would offer more reliable insights. Additionally, qualitative research could provide deeper understanding of the personal motivations and barriers experienced by different consumer segments.

In conclusion, although our study sheds light on green food choices, the highlighted limitations serve as reminders to exercise caution in in interpreting our results and emphasize the need for further research to address these challenges.

4.2. Practical Implications

The findings of the present study provided some valuable practical insights for marketers and policymakers aiming to promote eco-sustainable food options. For instance, to effectively target the NBFI segment, marketing strategies should highlight the health benefits and environmental impact of green foods, potentially through labeling or certification schemes. Additionally, policies could be designed to make green products more accessible and affordable, addressing common barriers identified among Non-Buyers. For consumers with favorable intentions, triggering green purchase behavior can probably be enhanced by emphasizing references to the healthiness, natural content, and eco-sustainability of food. Additionally, fostering feelings of pride associated with eco-sustainable purchases could be effective. Encouraging experimentations with unfamiliar foods may also prove beneficial for this category. These insights are valuable for marketers and policymakers, especially when targeting the NBFI segment—a likely sizable portion of the consumer population. To address the green attitude-behavior gap, interventions for the NBFI segment should focus on improving the link between an intention to buy and consume eco-sustainable food. Strategies may include promoting environmental knowledge [38] and developing green food options that are more convenient, affordable, and familiar. As concerns emotions related to green food purchasing, one effective strategy could involve emphasizing the pride associated with consuming green food. By doing so, marketers can influence the behavior of their target customers, including those in the Non-Buyers with Favorable Intensions group, and the attitude behavior-gap. For instance, Starbucks successfully employed this approach in their "Holiday Red Cups" campaign, showcasing designs created by customers and effectively evoking feelings of pride among them. Moreover, the findings regarding food motives suggest that to promote a healthy and sustainable diet at a population level, consistent messaging based on health and sustainability motives is crucial for encouraging people to transition into the Coherent Buyers category. Organizations like the Institute for Public Policy Research in the UK [109] already advocate for such messaging to raise global awareness about the connections between dietary choices, health, and environmental impacts, and our results underline the importance of persisting on this path. Addressing the barriers faced by the Coherent Non-Buyers group is equally important. Strategies could reshape the food environment to make healthy and sustainable options more accessible, affordable, and convenient. For instance, research has shown that increasing the availability of vegetarian (and thus, green) options, reducing prices, or adjusting menu layouts can encourage the selection of vegetarian dishes in university cafeterias [110–112]. These strategies should be promoted across various food service systems, especially in public institutions where local and national governments hold significant influence [111]. Furthermore, encouraging innovations from the food industry—such as developing healthier, more affordable, and environmentally sustainable meals based on familiar recipes—can facilitate

dietary transitions for individuals motivated by ease, cost, accessibility, and familiarity with green food like members of the NBFI and Coherent Non-buyers segments [113,114].

5. Conclusions

The pursuit of healthy and eco-sustainable diets in Western nations is well-established. Key principles include reducing consumption of animal-based foods, increasing intake of plant-based foods, and avoiding highly processed, unhealthy foods rich in saturated fats and added sugars. These dietary choices offer immense benefits for both individual health and the planet's well-being. However, understanding the psychological pathways that drive individuals to transition from their current diet to a greener and healthier diet remains an unexplored area of research. The findings from our present study contribute valuable insights toward addressing this gap. By better characterizing the three distinct consumer groups, we provide practical implications for marketers and policymakers aiming to promote healthy and eco-sustainable dietary choices.

Valuable insight to address the green attitude-behavior gap also emerged from comparing NBFIs with Coherent Buyers. While previous research primarily focused on regular green buyers and convinced non-buyers, the attention to NBFIs fills a gap in the literature in specific quantitative research on this segment of the population—the very group responsible for the green food attitude-behavior gap. Furthermore, our study offers valuable insights into the factors that contribute to individuals falling into the Coherent Non-Buyers cluster. This information can serve as a starting point for designing targeted interventions aimed at shifting their eating habits towards more sustainable choices. To promote a dietary transition for all, policymakers should develop strategies that specifically target individuals with low green food purchasing behavior. Consistent messaging about what constitutes a greener diet and reshaping the food environment to facilitate sustainable food choices are essential steps in this endeavor.

Author Contributions: Conceptualization, P.G., S.d.S. and A.Z.; methodology, G.C., S.d.S. and P.G.; formal analysis, S.d.S., G.C. and P.G.; investigation, S.d.S.; data curation, S.d.S.; writing—original draft preparation, S.d.S.; writing—review and editing, P.G., G.C. and A.Z.; supervision, P.G., G.C. and A.Z. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Bioethics Committee of the University of Bologna (protocol number 0090636).

Informed Consent Statement: Informed consent was obtained from all participants involved in the study.

Data Availability Statement: Although the data are not publicly available due to privacy and ethical restrictions, they are available from the corresponding author upon reasonable request.

Conflicts of Interest: Author Alessandra Zamagni was employed by the Ecoinnovazione Srl. The remaining authors declare that the re-search was conducted in the absence of any commercial or financial relationships that could be construed as a po-tential conflict of interest.

References

1. Nations, U. *The Sustainable Development Goals Report 2018*; UN/Department of Economic and Social Affairs: New York, NY, USA, 2018. Available online: https://www.un-ilibrary.org/content/books/9789213633175 (accessed on 17 May 2024).
2. Matthes, J. Uncharted Territory in Research on Environmental Advertising: Toward an Organizing Framework. *J. Advert.* **2019**, *48*, 91–101. [CrossRef]
3. Wang, H.; Ma, B.; Bai, R. How Does Green Product Knowledge Effectively Promote Green Purchase Intention? *Sustainability* **2019**, *11*, 1193. [CrossRef]
4. Nguyen, H.V.; Nguyen, C.H.; Hoang, T.T.B. Green Consumption: Closing the Intention-Behavior Gap. *Sustain. Dev.* **2019**, *27*, 118–129. [CrossRef]
5. ElHaffar, G.; Durif, F.; Dubé, L. Towards Closing the Attitude-Intention-Behavior Gap in Green Consumption: A Narrative Review of the Literature and an Overview of Future Research Directions. *J. Clean. Prod.* **2020**, *275*, 122556. [CrossRef]

6. Liobikienė, G.; Bernatonienė, J. Why Determinants of Green Purchase Cannot Be Treated Equally? The Case of Green Cosmetics: Literature Review. *J. Clean. Prod.* **2017**, *162*, 109–120. [CrossRef]
7. Durif, F. Baromètre de La Consommation Responsible. Available online: https://scholar.google.com/scholar_lookup?title=Barom%C3%A8tre%20de%20la%20consommation%20responsable&author=BCR&publication_year=2017 (accessed on 12 May 2023).
8. Gleim, M.; Lawson, S.J. Spanning the Gap: An Examination of the Factors Leading to the Green Gap. *J. Consum. Mark.* **2014**, *31*, 503–514. [CrossRef]
9. Park, H.J.; Lin, L.M. Exploring Attitude–Behavior Gap in Sustainable Consumption: Comparison of Recycled and Upcycled Fashion Products. *J. Bus. Res.* **2020**, *117*, 623–628. [CrossRef]
10. Frank, P.; Brock, C. Bridging the Intention-Behavior Gap among Organic Grocery Customers: The Crucial Role of Point-of-Sale Information. *Psychol. Mark.* **2018**, *35*, 586–602. [CrossRef]
11. Groening, C.; Sarkis, J.; Zhu, Q. Green Marketing Consumer-Level Theory Review: A Compendium of Applied Theories and Further Research Directions. *J. Clean. Prod.* **2018**, *172*, 1848–1866. [CrossRef]
12. Šajn, N. Sustainable Consumption–Helping Consumers Make Eco-Friendly Choices. Available online: https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/659295/EPRS_BRI (accessed on 17 May 2024).
13. Luthra, C.; Deshwal, P. Determinants of Green Purchase Behaviour—A Literature Review on Specific Product Categories. *Acad. Mark. Stud. J.* **2022**, *26*, 1–16.
14. Liobikienė, G.; Juknys, R. The Role of Values, Environmental Risk Perception, Awareness of Consequences, and Willingness to Assume Responsibility for Environmentally-Friendly Behaviour: The Lithuanian Case. *J. Clean. Prod.* **2016**, *112*, 3413–3422. [CrossRef]
15. Magnusson, M.K.; Arvola, A.; Koivisto, H.U.; Åberg, L.; Sjödén, P. Attitudes towards Organic Foods among Swedish Consumers. *Br. Food, J.* **2001**, *103*, 209–227. [CrossRef]
16. Chen, Y.; Chang, C. Enhance Green Purchase Intentions: The Roles of Green Perceived Value, Green Perceived Risk, and Green Trust. *Manag. Decis.* **2012**, *50*, 502–520. [CrossRef]
17. Peattie, K.; Crane, A. Green Marketing: Legend, Myth, Farce or Prophesy? *Qual. Mark. Res. Int. J.* **2005**, *8*, 357–370. [CrossRef]
18. Springmann, M.; Clark, M.; Mason-D'Croz, D.; Wiebe, K.; Bodirsky, B.L.; Lassaletta, L.; De Vries, W.; Vermeulen, S.J.; Herrero, M.; Carlson, K.M.; et al. Options for Keeping the Food System within Environmental Limits. *Nature* **2018**, *562*, 519–525. [CrossRef]
19. Durif, F.; Boivin, C.; Julien, C. In Search of a Green Product Definition. *Innov. Mark.* **2010**, *6*, 25–33.
20. Gerber, P.J.; Steinfeld, H.; Henderson, B.; Mottet, A.; Opio, C.; Dijkman, J.; Falcucci, A.; Tempio, G. *Tackling Climate Change through Livestock: A Global Assessment of Emissions and Mitigation Opportunities*; Food and Agriculture Organization of the United Nations: Rome, Italy, 2013; ISBN 978-92-5-107920-1.
21. Stoll-Kleemann, S.; Schmidt, U.J. Reducing Meat Consumption in Developed and Transition Countries to Counter Climate Change and Biodiversity Loss: A Review of Influence Factors. *Reg. Environ. Change* **2017**, *17*, 1261–1277. [CrossRef]
22. Machovina, B.; Feeley, K.J.; Ripple, W.J. Biodiversity Conservation: The Key Is Reducing Meat Consumption. *Sci. Total Environ.* **2015**, *536*, 419–431. [CrossRef]
23. Lacroix, K. Comparing the Relative Mitigation Potential of Individual Pro-Environmental Behaviors. *J. Clean. Prod.* **2018**, *195*, 1398–1407. [CrossRef]
24. Steinfeld, H.; Gerber, P.; Wassenaar, T.D.; Castel, V.; Rosales, M.; Haan, C. *Livestock's Long Shadow: Environmental Issues and Options*; Food and Agriculture Organization of the United Nations: Rome, Italy, 2006; ISBN 978-92-5-105571-7.
25. Pribis, P.; Pencak, R.C.; Grajales, T. Beliefs and Attitudes toward Vegetarian Lifestyle across Generations. *Nutrients* **2010**, *2*, 523–531. [CrossRef]
26. Cassidy, E.S.; West, P.C.; Gerber, J.S.; Foley, J.A. Redefining Agricultural Yields: From Tonnes to People Nourished per Hectare. *Environ. Res. Lett.* **2013**, *8*, 034015. [CrossRef]
27. Population | United Nations. Available online: https://www.un.org/en/global-issues/population (accessed on 4 December 2023).
28. Garnett, T.; Godde, C.; Muller, A.; Röös, E.; Smith, P.; de Boer, I.J.M.; zu Ermgassen, E.; Herrero, M.; van Middelaar, C.; Schader, C.; et al. *Grazed and Confused? Ruminating on Cattle, Grazing Systems, Methane, Nitrous Oxide, the Soil Carbon Sequestration Question—and What It All Means for Greenhouse Gas Emissions*; FCRN, University of Oxford: Oxfordshire, England, 2017.
29. Springmann, M.; Wiebe, K.; Mason-D'Croz, D.; Sulser, T.B.; Rayner, M.; Scarborough, P. Health and Nutritional Aspects of Sustainable Diet Strategies and Their Association with Environmental Impacts: A Global Modelling Analysis with Country-Level Detail. *Lancet Planet. Health* **2018**, *2*, e451–e461. [CrossRef] [PubMed]
30. Ismael, D.; Ploeger, A. The Potential Influence of Organic Food Consumption and Intention-Behavior Gap on Consumers' Subjective Wellbeing. *Foods* **2020**, *9*, 650. [CrossRef]
31. Wang, J.; Nguyen, N.; Bu, X. Exploring the Roles of Green Food Consumption and Social Trust in the Relationship between Perceived Consumer Effectiveness and Psychological Wellbeing. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4676. [CrossRef] [PubMed]
32. Xiao, J.J.; Li, H. Sustainable Consumption and Life Satisfaction. *Soc. Indic. Res.* **2011**, *104*, 323–329. [CrossRef]
33. Palnau, J.-F.; Ziegler, M.; Lämmle, L. You Are What You Eat and So Is Our Planet: Identifying Dietary Groups Based on Personality and Environmentalism. *Int. J. Environ. Res. Public. Health* **2022**, *19*, 9354. [CrossRef]

34. Haba, H.F.; Bredillet, C.; Dastane, O. Green Consumer Research: Trends and Way Forward Based on Bibliometric Analysis. *Clean. Responsible Consum.* **2023**, *8*, 100089. [CrossRef]
35. Dul, J. Necessary Condition Analysis (NCA): Logic and Methodology of "Necessary but Not Sufficient" Causality. *Organ. Res. Methods* **2016**, *19*, 10–52. [CrossRef]
36. Peattie, K. Green Consumption: Behavior and Norms. *Annu. Rev. Environ. Resour.* **2010**, *35*, 195–228. [CrossRef]
37. Patwary, A.K.; Rasoolimanesh, S.M.; Rabiul, M.K.; Aziz, R.C.; Hanafiah, M.H. Linking Environmental Knowledge, Environmental Responsibility, Altruism, and Intention toward Green Hotels through Ecocentric and Anthropocentric Attitudes. *Int. J. Contemp. Hosp. Manag.* **2022**, *34*, 4653–4673. [CrossRef]
38. De Sio, S.; Zamagni, A.; Casu, G.; Gremigni, P. Green Trust as a Mediator in the Relationship between Green Advertising Skepticism, Environmental Knowledge, and Intention to Buy Green Food. *Int. J. Environ. Res. Public. Health* **2022**, *19*, 16757. [CrossRef]
39. Wijekoon, R.; Sabri, M.F. Determinants That Influence Green Product Purchase Intention and Behavior: A Literature Review and Guiding Framework. *Sustainability* **2021**, *13*, 6219. [CrossRef]
40. Siegrist, M.; Hartmann, C. Impact of Sustainability Perception on Consumption of Organic Meat and Meat Substitutes. *Appetite* **2019**, *132*, 196–202. [CrossRef] [PubMed]
41. Singh, A.; Verma, P. Factors Influencing Indian Consumers' Actual Buying Behaviour towards Organic Food Products. *J. Clean. Prod.* **2017**, *167*, 473–483. [CrossRef]
42. Rezai, G.; Mohamed, Z.; Shamsudin, M.N.; Teng, P.K. Demographic and Attitudinal Variables Associated with Consumers' Intention to Purchase Green Produced Foods in Malaysia. *Int. J. Innov. Manag. Technol.* **2011**, *2*, 401.
43. Zhang, F.; Huang, C.L.; Lin, B.; Epperson, J.E. Modeling Fresh Organic Produce Consumption with Scanner Data: A Generalized Double Hurdle Model Approach. *Agribusiness* **2008**, *24*, 510–522. [CrossRef]
44. Vecchio, R.; Annunziata, A. Willingness-to-Pay for Sustainability-Labelled Chocolate: An Experimental Auction Approach. *J. Clean. Prod.* **2015**, *86*, 335–342. [CrossRef]
45. Petrescu, D.C.; Petrescu-Mag, R.M.; Burny, P.; Azadi, H. A New Wave in Romania: Organic Food. Consumers' Motivations, Perceptions, and Habits. *Agroecol. Sustain. Food Syst.* **2017**, *41*, 46–75. [CrossRef]
46. Govindasamy, R.; Italia, J. Predicting Willingness-To-Pay a Premium for Organically Grown Fresh Produce. *J. Food Distrib. Res.* **1999**, *30*, 44–53. [CrossRef]
47. Thompson, G.D.; Kidwell, J. Explaining the Choice of Organic Produce: Cosmetic Defects, Prices, and Consumer Preferences. *Am. J. Agric. Econ.* **1998**, *80*, 277–287. [CrossRef]
48. Bernard, J.C.; Zhang, C.; Gifford, K. An Experimental Investigation of Consumer Willingness to Pay for Non-GM Foods When an Organic Option Is Present. *Agric. Resour. Econ. Rev.* **2006**, *35*, 374–385. [CrossRef]
49. De Medeiros, J.F.; Ribeiro, J.L.D.; Cortimiglia, M.N. Influence of Perceived Value on Purchasing Decisions of Green Products in Brazil. *J. Clean. Prod.* **2016**, *110*, 158–169. [CrossRef]
50. Ricci, E.C.; Banterle, A.; Stranieri, S. Trust to Go Green: An Exploration of Consumer Intentions for Eco-Friendly Convenience Food. *Ecol. Econ.* **2018**, *148*, 54–65. [CrossRef]
51. Moons, I.; Barbarossa, C.; De Pelsmacker, P. The Determinants of the Adoption Intention of Eco-Friendly Functional Food in Different Market Segments. *Ecol. Econ.* **2018**, *151*, 151–161. [CrossRef]
52. Stranieri, S.; Ricci, E.C.; Banterle, A. Convenience Food with Environmentally-Sustainable Attributes: A Consumer Perspective. *Appetite* **2017**, *116*, 11–20. [CrossRef] [PubMed]
53. Johnson, M. The Feeling of What Happens: Body and Emotion in the Making of Consciousness (Review). *J. Specul. Philos.* **2001**, *15*, 323–326. [CrossRef]
54. Schmitt, B. Experiential Marketing. *J. Mark. Manag.* **1999**, *15*, 53–67. [CrossRef]
55. Sangroya, D.; Nayak, J.K. Factors Influencing Buying Behaviour of Green Energy Consumer. *J. Clean. Prod.* **2017**, *151*, 393–405. [CrossRef]
56. Wang, J.; Wu, L. The Impact of Emotions on the Intention of Sustainable Consumption Choices: Evidence from a Big City in an Emerging Country. *J. Clean. Prod.* **2016**, *126*, 325–336. [CrossRef]
57. Kaiser, F.G. A Moral Extension of the Theory of Planned Behavior: Norms and Anticipated Feelings of Regret in Conservationism. *Personal. Individ. Differ.* **2006**, *41*, 71–81. [CrossRef]
58. Onwezen, M.C.; Bartels, J.; Antonides, G. Environmentally Friendly Consumer Choices: Cultural Differences in the Self-Regulatory Function of Anticipated Pride and Guilt. *J. Environ. Psychol.* **2014**, *40*, 239–248. [CrossRef]
59. Kim, Y.J.; Njite, D.; Hancer, M. Anticipated Emotion in Consumers' Intentions to Select Eco-Friendly Restaurants: Augmenting the Theory of Planned Behavior. *Int. J. Hosp. Manag.* **2013**, *34*, 255–262. [CrossRef]
60. Van Zomeren, M.; Spears, R.; Leach, C.W. Experimental Evidence for a Dual Pathway Model Analysis of Coping with the Climate Crisis. *J. Environ. Psychol.* **2010**, *30*, 339–346. [CrossRef]
61. Tracy, J.L.; Robins, R.W. Putting the Self into Self-Conscious Emotions: A Theoretical Model. *Psychol. Inq.* **2004**, *15*, 103–125. [CrossRef]
62. Ketelaar, T.; Tung Au, W. The Effects of Feelings of Guilt on the Behaviour of Uncooperative Individuals in Repeated Social Bargaining Games: An Affect-as-Information Interpretation of the Role of Emotion in Social Interaction. *Cogn. Emot.* **2003**, *17*, 429–453. [CrossRef] [PubMed]

63. Williams, L.A.; DeSteno, D. Pride and Perseverance: The Motivational Role of Pride. *J. Pers. Soc. Psychol.* **2008**, *94*, 1007–1017. [CrossRef]
64. Antonetti, P.; Maklan, S. Exploring Postconsumption Guilt and Pride in the Context of Sustainability. *Psychol. Mark.* **2014**, *31*, 717–735. [CrossRef]
65. Onwezen, M.C.; Antonides, G.; Bartels, J. The Norm Activation Model: An Exploration of the Functions of Anticipated Pride and Guilt in pro-Environmental Behaviour. *J. Econ. Psychol.* **2013**, *39*, 141–153. [CrossRef]
66. Baumeister, R.F.; Stillwell, A.M.; Heatherton, T.F. Personal Narratives About Guilt: Role in Action Control and Interpersonal Relationships. *Basic Appl. Soc. Psychol.* **1995**, *17*, 173–198. [CrossRef]
67. Chen, M.-F. Extending the Theory of Planned Behavior Model to Explain People's Energy Savings and Carbon Reduction Behavioral Intentions to Mitigate Climate Change in Taiwan–Moral Obligation Matters. *J. Clean. Prod.* **2016**, *112*, 1746–1753. [CrossRef]
68. Li, J.; Fischer, K.W. Respect as a Positive Self-Conscious Emotion in European Americans and Chinese. In *The Self-Conscious Emotions: Theory and Research*; The Guilford Press: New York, NY, USA, 2007; pp. 224–242. ISBN 1-59385-486-2.
69. Tangney, J.P.; Stuewig, J.; Mashek, D.J. Moral Emotions and Moral Behavior. *Annu. Rev. Psychol.* **2007**, *58*, 345–372. [CrossRef] [PubMed]
70. Corral-Verdugo, V.; Bonnes, M.; Tapia-Fonllem, C.; Fraijo-Sing, B.; Frías-Armenta, M.; Carrus, G. Correlates of Pro-Sustainability Orientation: The Affinity towards Diversity. *J. Environ. Psychol.* **2009**, *29*, 34–43. [CrossRef]
71. Nerb, J.; Spada, H. Evaluation of Environmental Problems: A Coherence Model of Cognition and Emotion. *Cogn. Emot.* **2001**, *15*, 521–551. [CrossRef]
72. Ajzen, I. The Theory of Planned Behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [CrossRef]
73. Aertsens, J.; Verbeke, W.; Mondelaers, K.; Van Huylenbroeck, G. Personal Determinants of Organic Food Consumption: A Review. *Br. Food, J.* **2009**, *111*, 1140–1167. [CrossRef]
74. Onwezen, M.C.; Reinders, M.J.; Verain, M.C.D.; Snoek, H.M. The Development of a Single-Item Food Choice Questionnaire. *Food Qual. Prefer.* **2019**, *71*, 34–45. [CrossRef]
75. Stok, F.M.; Hoffmann, S.; Volkert, D.; Boeing, H.; Ensenauer, R.; Stelmach-Mardas, M.; Kiesswetter, E.; Weber, A.; Rohm, H.; Lien, N.; et al. The DONE Framework: Creation, Evaluation, and Updating of an Interdisciplinary, Dynamic Framework 2.0 of Determinants of Nutrition and Eating. *PLoS ONE* **2017**, *12*, e0171077. [CrossRef] [PubMed]
76. Aleksandrowicz, L.; Green, R.; Joy, E.J.M.; Smith, P.; Haines, A. The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review. *PLoS ONE* **2016**, *11*, e0165797. [CrossRef]
77. Tobler, C.; Visschers, V.H.M.; Siegrist, M. Eating Green. Consumers' Willingness to Adopt Ecological Food Consumption Behaviors. *Appetite* **2011**, *57*, 674–682. [CrossRef]
78. Verain, M.C.D.; Onwezen, M.C.; Sijtsema, S.J.; Dagevos, H.; Verain, M.C.D.; Onwezen, M.C.; Sijtsema, S.J.; Dagevos, H. The Added Value of Sustainability Motivations in Understanding Sustainable Food Choices. *APSTRACT: Appl. Stud. Agribus. Commer.* **2016**, *10*, 66–67. [CrossRef]
79. Verain, M.C.D.; Snoek, H.M.; Onwezen, M.C.; Reinders, M.J.; Bouwman, E.P. Sustainable Food Choice Motives: The Development and Cross-Country Validation of the Sustainable Food Choice Questionnaire (SUS-FCQ). *Food Qual. Prefer.* **2021**, *93*, 104267. [CrossRef]
80. Johnston, J.L.; Fanzo, J.C.; Cogill, B. Understanding Sustainable Diets: A Descriptive Analysis of the Determinants and Processes That Influence Diets and Their Impact on Health, Food Security, and Environmental Sustainability. *Adv. Nutr.* **2014**, *5*, 418–429. [CrossRef]
81. Steptoe, A.; Pollard, T.M.; Wardle, J. Development of a Measure of the Motives Underlying the Selection of Food: The Food Choice Questionnaire. *Appetite* **1995**, *25*, 267–284. [CrossRef] [PubMed]
82. Bellows, A.C.; Alcaraz, V.G.; Hallman, W.K. Gender and Food, a Study of Attitudes in the USA towards Organic, Local, U.S. Grown, and GM-Free Foods. *Appetite* **2010**, *55*, 540–550. [CrossRef]
83. Onwezen, M.C.; Bartels, J. Which Perceived Characteristics Make Product Innovations Appealing to the Consumer? A Study on the Acceptance of Fruit Innovations Using Cross-Cultural Consumer Segmentation. *Appetite* **2011**, *57*, 50–58. [CrossRef]
84. Verain, M.; Sijtsema, S.; Dagevos, H.; Antonides, G. Attribute Segmentation and Communication Effects on Healthy and Sustainable Consumer Diet Intentions. *Sustainability* **2017**, *9*, 743. [CrossRef]
85. Sexton, N.R.; Miller, H.M.; Dietsch, A.M. Appropriate Uses and Considerations for Online Surveying in Human Dimensions Research. *Hum. Dimens. Wildl.* **2011**, *16*, 154–163. [CrossRef]
86. Young, T.J. Questionnaires and Surveys. In *Research Methods in Intercultural Communication: A Practical Guide*; Hua, Z., Ed.; Wiley: Oxford, UK, 2015; pp. 165–180. [CrossRef]
87. Dolnicar, S.; Grün, B.; Leisch, F.; Schmidt, K. Required Sample Sizes for Data-Driven Market Segmentation Analyses in Tourism. *J. Travel Res.* **2014**, *53*, 296–306. [CrossRef]
88. Szabo, S.; Webster, J. Perceived Greenwashing: The Effects of Green Marketing on Environmental and Product Perceptions. *J. Bus. Ethics* **2021**, *171*, 719–739. [CrossRef]
89. Haws, K.L.; Sample, K.L.; Hulland, J. Scale Use and Abuse: Towards Best Practices in the Deployment of Scales. *J. Consum. Psychol.* **2023**, *33*, 226–243. [CrossRef]

90. Kost, R.G.; Correa Da Rosa, J. Impact of Survey Length and Compensation on Validity, Reliability, and Sample Characteristics for Ultrashort, Short, and Long-Research Participant Perception Surveys. *J. Clin. Transl. Sci.* **2018**, *2*, 31–37. [CrossRef] [PubMed]
91. Soyez, K. How National Cultural Values Affect Pro-environmental Consumer Behavior. *Int. Mark. Rev.* **2012**, *29*, 623–646. [CrossRef]
92. Gambarota, F.; Grassi, M.; Salcuni, S. *Book of Abstract. 30° Congresso Dell'Associazione Italiana di Psicologia*; Padova University Press: Padova, Italy, 2022; p. 1762. ISBN 9788869383168.
93. Lindeman, M.; Väänänen, M. Measurement of Ethical Food Choice Motives. *Appetite* **2000**, *34*, 55–59. [CrossRef]
94. Eertmans, A.; Victoir, A.; Notelaers, G.; Vansant, G.; Van Den Bergh, O. The Food Choice Questionnaire: Factorial Invariant over Western Urban Populations? *Food Qual. Prefer.* **2006**, *17*, 344–352. [CrossRef]
95. Sautron, V.; Péneau, S.; Camilleri, G.M.; Muller, L.; Ruffieux, B.; Hercberg, S.; Méjean, C. Validity of a Questionnaire Measuring Motives for Choosing Foods Including Sustainable Concerns. *Appetite* **2015**, *87*, 90–97. [CrossRef]
96. Gliem, J.; Gliem, R. Calculating, Interpreting, And Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales. In Proceedings of the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, Columbus, OH, USA, 8–10 October 2003. Available online: https://scholarworks.iupui.edu/handle/1805/344 (accessed on 14 August 2024).
97. Mooi, E.; Sarstedt, M. *A Concise Guide to Market Research*; Springer: Berlin/Heidelberg, Germany, 2011; ISBN 978-3-642-12540-9.
98. Wilson, P.A.; Meyer, I.H.; Antebi-Gruszka, N.; Boone, M.R.; Cook, S.H.; Cherenack, E.M. Profiles of Resilience and Psychosocial Outcomes among Young Black Gay and Bisexual Men. *Am. J. Commun. Psycol.* **2016**, *57*, 144–157. [CrossRef]
99. Hosmer, D.W.; Lemeshow, S. *Applied Logistic Regression*, 1st ed.; John Wiley & Sons: New York, NY, USA, 2000; ISBN 978-0-471-35632-5.
100. Rogerson, P.A. *Statistical Methods for Geography*; Sage: London, UK, 2001.
101. IBM Corp. *IBM SPSS Statistics for Windows 2017*; IBM Corp.: Armonk, NY, USA, 2017.
102. Marty, L.; Chambaron, S.; de Lauzon-Guillain, B.; Nicklaus, S. The Motivational Roots of Sustainable Diets: Analysis of Food Choice Motives Associated to Health, Environmental and Socio-Cultural Aspects of Diet Sustainability in a Sample of French Adults. *Clean. Responsible Consum.* **2022**, *5*, 100059. [CrossRef]
103. Baudry, J.; Péneau, S.; Allès, B.; Touvier, M.; Hercberg, S.; Galan, P.; Amiot, M.-J.; Lairon, D.; Méjean, C.; Kesse-Guyot, E. Food Choice Motives When Purchasing in Organic and Conventional Consumer Clusters: Focus on Sustainable Concerns (The NutriNet-Santé Cohort Study). *Nutrients* **2017**, *9*, 88. [CrossRef] [PubMed]
104. Rivis, A.; Sheeran, P.; Armitage, C.J. Expanding the Affective and Normative Components of the Theory of Planned Behavior: A Meta-Analysis of Anticipated Affect and Moral Norms. *J. Appl. Soc. Psychol.* **2009**, *39*, 2985–3019. [CrossRef]
105. Webb, T.L.; Sheeran, P. Does Changing Behavioral Intentions Engender Behavior Change? A Meta-Analysis of the Experimental Evidence. *Psychol. Bull.* **2006**, *132*, 249–268. [CrossRef]
106. Kowald, M.; Axhausen, K.W. Focusing on Connected Personal Leisure Networks: Selected Results from a Snowball Sample. *Environ. Plan. Econ. Space* **2012**, *44*, 1085–1100. [CrossRef]
107. Smith, J.A.; Jones, L.M. Gender Differences in Survey Participation: A Meta-Analysis. *J. Surv. Res.* **2020**, *45*, 254–267.
108. Miller, K.E.; Davis, R.A. The Impact of Education on Survey Response: A Cross-Sectional Study. *J. Educ. Res.* **2019**, *12*, 180–194.
109. Coleman, P.; Nyman, M.; Murphy, L.; Oyebode, O. *Building a Food System that Works for Everyone*; IPPR: London, UK, 2021.
110. Garnett, E.E.; Balmford, A.; Marteau, T.M.; Pilling, M.A.; Sandbrook, C. Price of Change: Does a Small Alteration to the Price of Meat and Vegetarian Options Affect Their Sales? *J. Environ. Psychol.* **2021**, *75*, 101589. [CrossRef]
111. Garnett, E.E.; Marteau, T.M.; Sandbrook, C.; Pilling, M.A.; Balmford, A. Order of Meals at the Counter and Distance between Options Affect Student Cafeteria Vegetarian Sales. *Nat. Food* **2020**, *1*, 485–488. [CrossRef]
112. Garnett, E.E.; Balmford, A.; Sandbrook, C.; Pilling, M.A.; Marteau, T.M. Impact of Increasing Vegetarian Availability on Meal Selection and Sales in Cafeterias. *Proc. Natl. Acad. Sci. USA* **2019**, *116*, 20923–20929. [CrossRef]
113. Remnant, J.; Adams, J. The Nutritional Content and Cost of Supermarket Ready-Meals. Cross-Sectional Analysis. *Appetite* **2015**, *92*, 36–42. [CrossRef]
114. Schmidt Rivera, X.C.; Azapagic, A. Life Cycle Environmental Impacts of Ready-Made Meals Considering Different Cuisines and Recipes. *Sci. Total Environ.* **2019**, *660*, 1168–1181. [CrossRef]