

**Philosophical and Psychological Perspectives on the Interaction Between Ethical  
and Aesthetic Value in Food**

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The candidate confirms that the work submitted is his own and that appropriate credit has been given where reference has been made to the work of others.

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## Abstract

The aim of this thesis is to integrate philosophical and psychological approaches to develop new interdisciplinary perspectives on the interaction between ethical and aesthetic (in the sense of gustatory) value in the food domain. This overarching aim of the thesis may be restated as exploring whether, and if so, how, a food's ethical status affects its aesthetic evaluation. The thesis approaches this overarching aim by addressing two related questions: First, on what conceptual basis might ethical-aesthetic value interaction in food be possible? And second, to the extent that such interaction is possible, what is the nature of this interaction from an empirical perspective? The first question is primarily addressed by way of philosophical analysis, while the second question is primarily addressed by conducting empirical studies.

Chapter One addresses the question of on what conceptual basis ethical-aesthetic value interaction in food might be possible, by exploring the applicability of the existing philosophical debate on ethical-aesthetic value interaction in art to the case of food. The chapter closes with the suggestion that ethical-aesthetic value interaction in food might be possible in cases where morally relevant aspects of food production leave a perceptible *trace* in the food.

Chapters Two and Three investigate the empirical evidence for ethical-aesthetic value interaction in food. Chapter Two details a systematic review of the existing empirical literature on the effect of ethical information on taste evaluation, while Chapter Three reports a set of three empirical studies the findings of which did not support the hypothesis that perceptible traces establish ethical-aesthetic value interaction in food.

Chapters Four and Five explore whether ethical-aesthetic value interaction in food might be established if it could be determined that the ethical status of food affects

specifically *aesthetic* engagement with food. Chapter Four argues that food experiences can indeed be aesthetic, and Chapter Five explores empirically whether ethical labelling affects specifically aesthetic ways of engaging with food.

The sixth and final chapter provides a synthesis of findings and reflects on the interdisciplinary methodology of the thesis. It concludes that, even though the empirical results of Chapter Five suggest that a food's ethical status may affect its aesthetic evaluation, there is ultimately no aesthetically appropriate conceptual basis that could sustain the conclusion that this empirical evidence amounts to genuine ethical-aesthetic value interaction in food.

## Table of Contents

Acknowledgments	3
Abstract	4
Table of Contents	6
List of Tables	9
List of Figures	12
Preface	14
Chapter One: Food and the Philosophical Debate on Ethical-Aesthetic Value Interaction in Art	16
Carroll’s Account of Ethical-Aesthetic Value Interaction in Art	17
Some Initial Empirical Evidence	20
Carroll’s Notion of Uptake: Unpacking the Aesthetic Aims of Food	21
Relevant Moral Responses to Food	32
Korsmeyer’s Means Moralism and the Notion of a Trace	46
Korsmeyer and the Moralistic Fallacy	47
Problems With the Notion of a Trace	52
Traces as Constituting Invitations To Share Moral Perspectives	54
Chapter Two: A Systematic Review of the Literature on the Effect of Ethical Information on the Perceived Taste Quality of Food	59
Method	62
Formulation of Study Eligibility Criteria (PICOS)	62
Search Strategy	63
Selection of Studies and Data Extraction	65
Results and Discussion	72
The Role of Traces in the Effect of Ethical Information on Perceived Taste Quality	72
The Relative Valence of the Effect of Ethical Information on Perceived Taste Quality	75
Limitations and Conclusion	80
Chapter Three: A Set of Empirical Studies Exploring the Notion of a Trace	83
Pilot Studies	87
Pilot Study 1	88

Method	88
Participants and Ethics	88
Design	88
Materials and Procedure	89
Results	92
Discussion	108
Pilot Study 2	113
Method	114
Participants and Ethics	114
Design	114
Materials and Procedure	114
Results	116
Discussion	123
Lab Study	124
Method	125
Participants and Ethics	126
Design	126
Materials and Procedure	127
Results	131
Discussion	136
Chapter Four: Can Food Experiences Be Aesthetic?	144
Kant's Aesthetic Theory	148
Kant's Distinction Between the Beautiful and the Agreeable	149
Kant's Notion of Disinterestedness	152
Desire Satisfaction	156
Desire Production	165
Contemporary Accounts of the Aesthetic	172
Telfer and the Move From Disinterestedness to Non-Instrumentality	172
Korsmeyer's Cognitivist Conception of the Aesthetic	175
Nanay's Account of Aesthetic Attention	194
Walton's Account of Aesthetic Meta-Pleasure	204
Chapter Five: An Adaptation of the Leeds Food Preference Questionnaire Using Ethical Labelling	212

Liking and Wanting as Distinct Components of Food Reward_____	212
Operationalising the Distinction Between Aesthetic and Non-Aesthetic Ways of Engaging With Food_____	213
The Leeds Food Preference Questionnaire_____	217
Stimuli Validation Study_____	221
Method_____	221
Participants and Ethics_____	221
Stimuli_____	222
Procedure_____	225
Results and Discussion_____	227
Main Study_____	233
Method_____	233
Participants and Ethics_____	233
Design_____	235
Pre-Screening Procedure_____	236
Overview and Procedure of Adapted LFPQ Tasks_____	236
Manipulation Check and Questionnaires_____	243
Results_____	246
Discussion_____	260
Chapter Six: Synthesis of Findings and Reflections on the Interdisciplinary	
Methodology of This Thesis_____	272
Reflections on the Interdisciplinary Methodology of This Thesis_____	284
References_____	290
Appendix A.1: Vignettes Created for Trace Pilot Studies_____	307
Appendix A.2: Selected Qualitative Responses From Trace Pilot Study 1_____	316
Appendix A.3: Poster Advert for Participation in the Trace Lab Study_____	328
Appendix A.4: Scale Items Adapted From Ecoscale (Stone et al., 1995) for Trace Lab Study_____	329
Appendix B: Questionnaires and Attention Checks Used in LFPQ Study_____	330
Appendix C: List of Talks Given & Posters Presented_____	334



**List of Tables**

Table 1	
Search Strategy (Web of Science)	64
Table 2	
Summary Table of Studies Identified Through Database Searching	67
Table 3	
Participant Characteristics (Pilot Study 1)	93
Table 4	
% Responses to Individual Vignettes That Expressed an Expectation of Noticeable Differences Between Food Products	97
Table 5	
Coding of Predictors in R	98
Table 6	
Representative Household Income Values	99
Table 7	
Results of Mixed-Effects Logistic Regression Analysis With Reference Levels Animal Welfare and No Trace	102
Table 8	
Participant Characteristics (Pilot Study 2)	118
Table 9	
Mean Perceived Moral Difference Between Production Methods by Individual Vignette	121
Table 10	
Results of Mixed-Effects Linear Regression Analysis With Reference Levels Animal Welfare and No Trace	123
Table 11	
Participant Characteristics (Lab Study)	132
Table 12	

## Results of Mixed-Effects Linear Regression Analysis With Reference Levels

Cookies, Basic Samples, Unethical, and No Trace \_\_\_\_\_ 136

## Table 13

Macronutrient Content of Food Items Included in the Stimuli Validation Study \_\_\_\_ 224

## Table 14

Overview of Criteria Surveyed in the Stimuli Validation Study \_\_\_\_\_ 228

## Table 15

Overview of Results of the Stimuli Validation Study \_\_\_\_\_ 230

## Table 16

Overview of LFPQ Measures \_\_\_\_\_ 237

## Table 17

Participant Characteristics (LFPQ Main Study) \_\_\_\_\_ 247

## Table 18

Means, Standard Deviations, and Internal Consistency Reliability of Participant  
Responses to the Questionnaires \_\_\_\_\_ 248

## Table 19

Means and Standard Deviations of Ethicalness Ratings and Moral Satisfaction  
Measures \_\_\_\_\_ 249

## Table 20

Means, Standard Errors, and t-Tests for Explicit Liking, Explicit Wanting, and  
Implicit Wanting Measures \_\_\_\_\_ 250

## Table 21

Means, Standard Deviations, and Pearson Correlations with Confidence Intervals 252

## Table 22

Pearson Partial Correlation Coefficients \_\_\_\_\_ 252

## Table 23

Summary of Mixed-Effects Linear Regression Model of the Relationship Between  
Explicit Liking, Ethical Status, and Mindful Eating \_\_\_\_\_ 254

Table 24	
Summary of Mixed-Effects Linear Regression Model of the Relationship Between Explicit Liking, Ethical Status, and Ethical Self-Identity _____	256
Table 25	
Summary of Linear Regression Model of the Relationship Between Implicit Wanting for Fairtrade Labelled Foods and Mindful Eating _____	257
Table 26	
Summary of Linear Regression Model of the Relationship Between Implicit Wanting for Fairtrade Labelled Foods and Ethical Self-Identity _____	258
Table 27	
Mindful Eating Questionnaire (MEQ) Items _____	330
Table 28	
Food Choice Questionnaire (FCQ) Items _____	331
Table 29	
Ethical Self-Identity Scale Items _____	332

## List of Figures

Figure 1	PRISMA Flow Diagram of the Record Screening and Selection Process _____	66
Figure 2	Percentage of Participants Who Expected Noticeable Differences Between Food Products in Each Experimental Condition _____	96
Figure 3	Overview of Statistical Significance of Individual Predictors and Interactions (Pilot Study 1) _____	101
Figure 4	Mean Perceived Moral Difference Between Production Methods Contrasted in Vignettes, Presented by Experimental Condition (Error Bars Represent Standard Error) _____	120
Figure 5	Overview of Statistical Significance of Individual Predictors and Interactions (Pilot Study 2) _____	122
Figure 6	Example of Lab Cubicle Set Up _____	128
Figure 7	Example of Food Samples Set Up _____	128
Figure 8	Mean Taste Ratings By Experimental Condition (Error Bars Represent Standard Error) _____	133
Figure 9	Plot of Interaction Between Ethical Status and Trace in Predicting Taste Ratings _	135
Figure 10	Overview of Food Images Featured in the Stimuli Validation Study _____	223
Figure 11		

Labelling Regime to Manipulate Ethical Status in the Stimuli Validation Study	__225
Figure 12	
Example of the Stimuli Validation Study Ethicalness Rating Question Design	____229
Figure 13	
Labelling Regime to Manipulate Ethical Status in the LFPQ Main Study	_____238
Figure 14	
Examples of Explicit Liking and Explicit Wanting Single Trials	_____241
Figure 15	
Illustration of the Paired Trial Procedure	_____242
Figure 16	
Overview of Images Featured in the Practice Mode	_____243
Figure 17	
Explicit Liking: Interaction Between MEQ (Total Score) and Ethical Status	____255
Figure 18	
Explicit Liking: Interaction Between Ethical Self-Identity and Ethical Status	____256
Figure 19	
Implicit Wanting for Fairtrade Labelled Foods Versus MEQ (Total Score)	_____257
Figure 20	
Implicit Wanting for Fairtrade Labelled Foods Versus Ethical Self-Identity	_____258

## Preface

The aim of this thesis is to integrate philosophical and psychological approaches to develop new interdisciplinary perspectives on the interaction between ethical and aesthetic value in the food domain.

Throughout the thesis, the terms “ethical” and “moral” are used interchangeably, as is typical in the philosophical literature that is relevant to the current thesis. An intuitive understanding of the meaning of the terms ethical and moral is assumed throughout the thesis unless the discussion necessitates specific reflection on the meaning of what it means for something to be ethical; a general definition of ethicalness or morality is not provided as doing so would likely complicate the thesis unnecessarily.

The term “aesthetic” is used throughout the thesis in a way that may not seem initially intuitive: As applied to food, the notion of the aesthetic is employed so as to include the gustatory. Thus, when a food’s aesthetic qualities are discussed, this does *not* refer exclusively to the visual features of food. Instead, a food’s aesthetic value refers to what we might otherwise refer to as its gustatory quality, or as its “deliciousness”.

Chapter Four of this thesis provides an extensive discussion of the notion of the aesthetic and the question of whether gustatory experiences can qualify as aesthetic.

Having thus refined the usage of the terms ethical and aesthetic, the overarching aim of this thesis may be restated in more concrete terms as exploring whether, and if so, how, a food’s ethical status affects its aesthetic (in the sense of gustatory) evaluation. The general approach adopted throughout the thesis can be characterised as working towards this overarching aim by attempting to answer two related questions: First, on what conceptual basis might ethical-aesthetic value interaction in food be possible? And second, to the extent that such interaction is possible, what is the nature of this interaction from an empirical perspective? The first question was generally addressed

through philosophical analysis, while the second question was addressed by conducting empirical studies. While it had originally been planned for the empirical research carried out in the context of this thesis to be primarily lab-based, the occurrence of the COVID-19 pandemic necessitated a pivot in the second half of the thesis (in particular, Chapter Five) towards research that could be conducted entirely online.

The contribution of the current thesis to the literature is threefold. First, the interdisciplinary methodology of this thesis integrates philosophical and psychological approaches to explore a theme that has not previously been studied in this manner. Second, the thesis extends the existing philosophical debate on ethical-aesthetic value interaction in art by considering the prospect of ethical-aesthetic value interaction in the food domain. And third, the thesis explores novel empirical approaches to operationalise the notion of “aesthetically” engaging with food in order to further our understanding of the effect of ethical food labelling on taste evaluations. The latter in particular may help to lay the conceptual groundwork for further research into ethical food labelling, with a particular focus on how people can be motivated to make more ethical food choices on the basis that more ethical foods afford a more pleasurable eating experience.

By way of a final remark, the writing perspective adopted throughout the thesis varies as a consequence of the interdisciplinary methodology of this thesis. This variation in writing style reflects the different conventions in the respective disciplines of philosophy and psychology: Research in philosophy tends to be written in the first person, whereas research in psychology tends to be written in the third person. The writing perspective adopted in the current thesis thus varies accordingly depending on whether the nature of the research presented is predominantly philosophical or psychological.

## Chapter One: Food and the Philosophical Debate on Ethical-Aesthetic Value

### Interaction in Art

Does a food's ethical value affect its aesthetic<sup>1</sup> value? The debate about the interaction between an artwork's ethical value and its aesthetic value has been a particular focus for philosophers of art for the past 25 years or so (Levinson, 1998). However, the potential applicability of this debate to the case of food has remained largely unexplored. I will begin by briefly mapping out the key positions that have been put forward in the debate about ethical-aesthetic value interaction in art. I will then introduce in more detail one particular account of such interaction, Carroll's moderate moralism (1996), and explore to what extent Carroll's account is applicable to the case of food. I will argue that while Carroll's account can in principle be applied to food, the scope of this applicability is ultimately much more limited than it might initially appear.

The positions that have been put forward in the philosophical debate about ethical-aesthetic value interaction in art can generally be characterised as either *autonomist* or *interactionist*. Autonomists (Anderson & Dean, 1998; Clavel-Vazquez, 2018) deny any interaction between the ethical and the aesthetic. They typically grant that many artworks can be evaluated in moral terms — we might praise them for enriching our moral understanding, or condemn them for corrupting it — but argue that such moral evaluation never affects a work's aesthetic value, no matter how morally defective or virtuous a work might be. In contrast, interactionists argue that a work's ethical value can affect its aesthetic value. There are disagreements among the proponents of interactionism, however, about the scope and the relative valence of this

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<sup>1</sup> As highlighted in the Preface, the main concern of this thesis is with what we might refer to as a food's gustatory value, or perhaps as its "deliciousness". I argue in Chapter Four that there's good reason to think of the aesthetic as including the gustatory, but for the purposes of the discussion in the current chapter nothing hinges on whether we ultimately accept this or not. I will continue to talk about a food's aesthetic rather than gustatory qualities in order to keep the language consistent across the domains of art and food.



interaction, where relative valence refers to the respective valences of the moral and aesthetic values involved in the interaction. *Moralists* such as Gaut (1998a) hold that wherever a work manifests morally defective attitudes, it is to that extent aesthetically defective, and, correspondingly, wherever a work manifests morally meritorious attitudes, it is to that extent aesthetically meritorious. *Moderate moralism* (Carroll, 1996) is similar to moralism but is more restricted in scope: According to moderate moralism, a moral defect may sometimes make for an aesthetic defect, and a moral virtue may sometimes make for an aesthetic virtue. Both moralists and moderate moralists maintain, however, that the relative valence of the interaction can never be inverted. *Contextualism*, sometimes also referred to as immoralism, (Eaton, 2012; Kieran, 2006) rejects this valence constraint on the interaction. Contextualists argue that the relative valence of the interaction can go both ways: A moral defect in a work may sometimes improve it aesthetically, whereas a moral virtue in a work may sometimes diminish it aesthetically.

In this chapter I will explore whether one particular account of ethical-aesthetic value interaction, Carroll's moderate moralism (Carroll, 1996), might be applied to food. There are two principal reasons for the focus on Carroll's account. First, Carroll's account is arguably the most influential account in the literature; his 1996 paper initiated the renewed interest in the interaction between aesthetic value and moral value in philosophical aesthetics. And second, Carroll's account is articulated in terms of the psychological responses of audiences to works of art, which makes it a fitting starting point to explore the applicability of the existing accounts of ethical-aesthetic value interaction in the philosophical literature to the case of food in the context of this interdisciplinary thesis.

### **Carroll's Account of Ethical-Aesthetic Value Interaction in Art**

Carroll's account of ethical-aesthetic value interaction in art relies on the idea that our moral responses to art may sometimes psychologically interfere with, or enhance, aesthetic uptake. Carroll discusses an actual example, Brett Easton Ellis' novel *American Psycho*, to illustrate the interference case, and a hypothetical example, an alternative version of the novel *Emma* written by Jane Austen's imaginary twin sister, to illustrate the enhancement case. *American Psycho* details the serial killings by a Wall Street investment banker as a satire of consumerist capitalism. However, Carroll maintains that the novel failed aesthetically because "the serial killings depicted in the novel are so graphically brutal that readers are not able morally to get past the gore in order to savour the parody" (Carroll, 1996, p. 232). The novel is morally defective to the extent that it suggests that the depicted serial killings could be taken as comic, and readers' moral responses to this defectiveness interfered with their ability to respond aesthetically to the novel in the way that had been intended by the author. But such failure to secure aesthetic uptake with the audience is an aesthetic defect in a work, Carroll argues, and since this aesthetic defectiveness is causally grounded in the novel's ethical defectiveness, *American Psycho* presents us with an instance of ethical-aesthetic value interaction.

In the hypothetical example to illustrate the enhancement case, Carroll asks us to imagine that Jane Austen had a twin sister who wrote an alternative version of the novel *Emma* "that told the same story in the same elegant prose, but which did not address our moral understanding at all" (Carroll, 1996, p. 236). All other things being equal, Carroll suggests that we would derive much less aesthetic enjoyment from this alternative version compared to the real version of the novel. The real *Emma* thus looks like another instance of ethical-aesthetic value interaction, as the manner in which the novel engages and deepens our moral understanding directly contributes to the aesthetic

success of the novel.

Before I turn to discussing whether Carroll's account can be applied to the food case, there are a couple of further things to note regarding the scope of the account. First, Carroll is not committed to the moralist claim that all moral defects or merits in a work necessarily make for aesthetic defects or merits. Carroll's moderate moralism merely asserts the more limited claim that a moral defect may sometimes detract from the aesthetic value of a work, and a moral merit may sometimes contribute to the aesthetic value of a work. Second, Carroll appeals to the responses of "morally sensitive audiences" (Carroll, 1996, p. 234) to determine when a work's moral worth interacts with its aesthetic evaluation. The purpose of this appeal to morally sensitive audiences is to conceptually detach the issue of when it is correct to say that ethical-aesthetic value interaction occurs from the responses of actual, potentially morally insensitive audiences. This ensures that we can still say that works such as Leni Riefenstahl's *Triumph of the Will*, a 1935 Nazi propaganda film that portrays Hitler as a heroic figure, are aesthetically defective in virtue of their ethical defectiveness, even if German audiences at the time of the film's release may not have morally responded to the film in a way that would have interfered with their ability to enjoy the film aesthetically.

On the face of it, it might seem like Carroll's moderate moralism readily applies to food. If we take the basic structure of the account to be that our ethical responses to works of art can sometimes causally affect our aesthetic responses to those works by virtue of either positively enhancing or negatively interfering with our aesthetic responses, then this would seem to apply to food in a similar manner as it does to art. Moral responses to food are common: We might feel morally reassured when eating organic eggs or fair trade chocolate, and we might feel a sense of moral unease when eating foie gras (that is, force-fed duck or goose) or foods produced by companies

linked to human rights abuses. But if it's the case that we sometimes have moral responses to foods, then it doesn't seem implausible to think that those moral responses might sometimes psychologically affect our aesthetic enjoyment of those foods.

### **Some Initial Empirical Evidence**

Indeed, there is some empirical evidence that might be interpreted as supporting the idea that ethical responses to foods have an effect on food liking: In three studies conducted with university students in Germany, Lotz et al. (2013) found that participants rated coffee and chocolate as tasting better when it was labelled fair trade compared to when it was labelled conventional. In two studies conducted at a university in Sweden, Sörqvist et al. (2015) found that participants rated banana, grapes and raisins as tasting better when they were labelled eco-friendly compared to when they were labelled conventional, although they didn't find this effect in a third study where water was labelled either eco-friendly or conventional. And in a large-scale cross-cultural study with organic consumers from Italy, Germany, Switzerland, Poland, the Netherlands, and France, Hemmerling et al. (2013) found that strawberry yogurt was evaluated more positively when it was labelled organic compared to when it was unlabelled. The robustness and exact nature of this apparent effect of ethical information about a food's origin on taste evaluation is still an open empirical question, as some studies that employed similar designs have found no significant effects (Silva et al., 2017), have found inconsistent results regarding the relative valence of the ethical and aesthetic evaluations such that positive ethical information had a negative effect on taste evaluation (Lee et al., 2013), or have only found an effect in participants who hold relevant ethical attitudes (Laureati et al., 2013). The next chapter will provide a systematic review of the empirical literature on the effect of ethical information on food liking; for the time being, it is sufficient to note that the overall picture that seems to be

emerging from the relevant empirical literature is that ethical information tends to have an effect on taste evaluations.

This empirical evidence appears to sit well with Carroll's moderate moralism as characterised above: It suggests that our moral responses to food can affect our aesthetic enjoyment of food, especially in morally sensitive eaters. However, I will now argue that in spite of this apparent congruence between the empirical data and Carroll's account, the applicability of Carroll's account to food is ultimately more limited in scope than it might initially appear. I will do so by considering in greater detail, on the one hand, what exactly is being affected on the aesthetic side of ethical-aesthetic value interaction as Carroll conceives of it, and, on the other hand, the particular kinds of moral responses Carroll discusses as giving rise to such interaction. I will discuss these in turn, addressing the aesthetic aspect of the interaction first, before discussing the moral aspect. I will argue that consideration of the aesthetic aspect doesn't give rise to any significant obstacles, although it does prompt some interesting reflections about how we might unpack a food's aesthetic aims in a manner that is compatible with Carroll's account. Instead, it is consideration of the moral aspect that poses more serious problems for the prospect of applying Carroll's moderate moralism to food.

### **Carroll's Notion of *Uptake*: Unpacking the Aesthetic Aims of Food**

Carroll's discussion of the aesthetic aspect of ethical-aesthetic value interaction is framed in terms of the notion of aesthetic uptake. The aesthetic problem with *American Psycho*, in Carroll's terms, is its "failure to achieve uptake as satire" (Carroll, 1996, p. 232); Carroll contends that "the work is aesthetically defective — in the sense of failing to secure psychological uptake" (Carroll, 1996, p. 235). If we want to consider the applicability of Carroll's account to food, we thus need to get clear on the notion of uptake and whether it is applicable to the food domain.

The manner in which Carroll employs the notion of uptake is closely tied to the intentions of the creators of the works he discusses. This is implicit in saying that *American Psycho* failed to achieve uptake *as satire*: Ellis intended the work to be a work of satire, and it is relative to this intention that we can judge the novel to be aesthetically defective. It is intended to be funny but fails to be funny. It has an aesthetic aim but fails to realise that aim in its audience. Cases like *American Psycho* that fail to achieve uptake may be contrasted with cases that succeed in securing uptake: Works that have some aesthetic aim and succeed in realising that aim in its audience. For example, Cristi Puiu's film *The Death of Mr. Lazarescu* succeeds at its aim of depicting as tragic the titular character's fate along his Kafkaesque journey through the Romanian healthcare system during the course of one night. Carroll's appeal to authorial intention functions to provide a point of reference regarding the aims of the work relative to which we can assess our aesthetic response to the work, thus allowing us to conclude whether it fails or succeeds in achieving uptake.

It might seem that Carroll's appeal to notions of authorship and authorial intention limits the applicability of his moderate moralism to the case of food. After all, our ways of talking about food aren't typically characterised by talk of authorship and authorial intention. An exception to this might be the case of recipes: We might refer to someone who came up with a new recipe as the author of that recipe. More generally, however, it would be a mistake to put too much emphasis on the typical usage of the term 'author'. Where we talk about authors in literary contexts, we talk about composers, directors, creators, and so on, in other (non-literary) creative domains. If we think of the concepts of authorship and authorial intention as being at their core about the creators of (aesthetic) objects, and about the intentions of those creators in relation to the objects they're creating, then there seem to be a number of ways in which these

notions are relevant to food beyond the case of recipe creation. Consider, for example, the case of someone preparing a dish by means of improvisation rather than by following any particular recipe, or of someone preparing a dish by following a recipe that they've come up with themselves. In either case, it seems appropriate to refer to the person preparing the dish as the creator of that dish. Further, it seems straightforward to recover the notion of authorial intention by pointing to what we might refer to as the set of gustatory intentions the creator is seeking to realise while preparing the dish, that is, how they intend the dish to taste. As we consider the applicability of Carroll's moderate moralism to the food case, we may thus replace talk of authorship and authorial intention with talk of gustatory creation and gustatory intention.

The application of the notions of gustatory creation and gustatory intention becomes more complex when we consider the case where someone prepares a dish by following someone else's recipe. In this case, both the creator of the original recipe as well as the person preparing the dish by following the recipe can be considered gustatory creators and be attributed gustatory intentions. The case is structurally analogous to the creation and interpretation of musical works: A composer who comes up with a new piece of music is the creator of that piece much like someone who comes up with a new dish is the creator of that dish.

The composer of a piece of music will typically have composed the piece with a set of intentions in mind regarding the piece itself. These intentions might, among other things, cover the piece's intended sonic characteristics (that is, what it should sound like), or its intended impact on a listener (for example, for the piece to be harmonically surprising, or rhythmically engaging, or for it to distort one's experience of time). In the case of a piece that is meant to be performed by an interpreter, the composer will then put together a set of instructions — the score — that detail what an interpreter should do

in order to realise a performance of the piece that is in line with the composer's intentions about the piece.

Analogously, the creator of a dish will typically have composed the dish with a set of intentions in mind regarding the dish itself. These intentions might, among other things, cover the dish's intended gustatory characteristics (that is, what it should taste like), or its intended impact on an eater (for example, for the taste of the dish to be surprising because it features an unexpected flavour or because it utilises ingredients in unexpected ways, or for the dish to be reminiscent of other dishes, cuisines, or places). As with the piece of music, the creator of the dish might then put together a set of instructions — the recipe — that detail what someone preparing the dish should do in order to realise a rendition of the dish that is in line with the dish creator's intentions about the dish.

We can further ascribe authorship and authorial intention to the interpreters both of musical compositions and of recipes. One might object to this on the grounds that interpreters are merely following someone else's instructions and thus it would be inappropriate to credit them with any meaningful sense of authorship. But this would be mistaken. One way we can understand why this is mistaken is to point out that structures like musical compositions and recipes, even if they contain very detailed instructions for an interpreter of the composition or recipe, still do not specify every last detail of how an interpreter should perform the piece or prepare the dish. Instructional structures like musical compositions and recipes are thus underdetermined to the extent that they do not specify every last detail of how they are to be followed.<sup>2</sup> This, in turn,

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<sup>2</sup> I'm not claiming that it is necessarily the case for a composition or recipe to be underdetermined in this way, only that this is typically the case. However, even if it was possible for a composition or recipe to avoid any underdetermination by specifying every last detail of how they are to be performed, an interpreter may still choose to diverge from the original author's intentions in order to develop their own interpretation of the composition or recipe. I'll discuss this in more detail below.



gives rise to the notion of the interpreter: It is the task of the interpreter to fill in these gaps in ways they see fit for the particular piece or recipe, thus making the interpreter the author, or creator, of their interpretation. A musical score might include the instruction to “slow down” at a particular point in the piece, but it will be for the interpreter to determine the specific rate and timings of the slowing down. Similarly, a recipe might include the instruction to “fry the onion until translucent”, but it will be for the person preparing the dish to judge specifically when the onions have reached the appropriate degree of translucency. Of course, a composition or recipe might also explicitly encourage creative contribution on the part of the interpreter. For example, a composition involving the playback of magnetic tapes using tape recorders might leave open the playback speed and direction of the tape recorders, or a recipe might include the instruction to “salt to taste”. Such examples provide perhaps the clearest case for the ascription of some sense of creative authorship to the interpreter.

Having thus established how some sense of creative authorship can be ascribed to interpreters both of musical compositions and of recipes, it seems self-evident that interpreters may shape their interpretations so as to realise their own aesthetic intentions regarding those interpretations. The interpreter’s aesthetic intentions regarding their interpretation may converge with the intentions of the original author, such as in cases where an interpreter intends to faithfully realise the intentions of the original composer or recipe creator. In other cases, the interpreter’s aesthetic intentions regarding their interpretation may diverge from the original author’s intentions to a greater or lesser extent. Sometimes an interpreter might even deliberately disregard the instructions provided by the composer or recipe creator if they think that doing so would change the interpretation of the piece or recipe in aesthetically interesting ways. The slow final movement of Tchaikovsky’s 6th symphony is marked *Adagio lamentoso*; a typical

interpretation that is broadly faithful to Tchaikovsky's tempo markings has a runtime of around ten minutes. In Leonard Bernstein's 1986 recording of the symphony, the movement stretches out to 17 minutes, almost twice its typical runtime. While not universally acclaimed, Bernstein's interpretation is generally considered noteworthy for the uniquely desolate perspective it brings to the work. In the food domain, someone following a recipe might play around with the stipulated cooking times to shape their interpretation of the dish in line with their gustatory intentions. They might, for instance, significantly increase the cooking time of onions to sweeten the overall flavour profile of the dish, or they might significantly decrease the cooking time of vegetables to add crunch to the textures present in the dish. The fact that interpreters of both musical compositions and recipes can bring their own set of creative intentions to their interpretations thus helps to explain the substantial aesthetic differences that can exist between different interpretations of the same composition or recipe.<sup>3</sup>

The preceding discussion is by no means intended to provide an exhaustive account of gustatory creation and gustatory intention in food. Rather, it is intended to illustrate some of the ways in which these notions are clearly relevant to the food domain. This should be sufficient to enable us to see how Carroll's notion of uptake can apply to food. As discussed earlier, Carroll suggests that a work succeeds in securing uptake if it has some aesthetic aim and succeeds in realising that aim in its audience; in contrast, a work fails to secure uptake if it has some aesthetic aim but fails to realise that aim in its audience; and Carroll's strategy for determining a work's aesthetic aims is to appeal to the intentions of the work's author. If we apply this structure to the food case,

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<sup>3</sup> We can make sense of how authorship and authorial intention apply to much commercially produced food by considering such food as a special case where a recipe is not (or only to a minimal extent) up for interpretation by the people or machines preparing the food, thus effectively eliminating the role of the interpreter as an agent who can be ascribed authorship and authorial intention alongside the creator(s) of the original recipe.

it implies that successful uptake in the food domain amounts to some food having some aesthetic aim and succeeding in realising that aim in eaters; in contrast, failed uptake amounts to some food having some aesthetic aim but failing to realise that aim in eaters; and, following Carroll's strategy, we can determine the aesthetic aims of food by way of an appeal to gustatory intention. For the time being, I will take the relevant aesthetic aims of food to be something along the lines of a food's intended gustatory impact; I will explore the applicability of the concept of the aesthetic to food in greater detail in Chapter Four.

According to this pattern for uptake success and failure in the food domain, an example of successful uptake might be someone preparing a dish and intending for the dish to exhibit an even balance of sweet and salty flavours, and for eaters to experience the dish as exhibiting an even balance of sweet and salty flavours. In contrast to such a case of successful uptake, let's say someone prepares a dish and intends for the flavour of the dish to be surprising because the dish (or some part of the dish) looks like one thing but tastes like quite another thing; for example, the dish might feature a white sauce that is meant to taste of tomatoes. If eaters are not surprised by the tomato flavour of the sauce, perhaps because the tomato flavour is too subtle or not sufficiently demarcated in the context of the overall flavour profile of the sauce, then it looks like we have an example of failed uptake. Of course, it's also possible that the intended gustatory impact is not further specified than for the food to simply be delicious; in that case, uptake success and failure would effectively be equivalent to a food being experienced as delicious or not.

As previously discussed, the assessment of uptake success or failure is relative to the aesthetic aims of a work, and, for Carroll, the aesthetic aims of a work are in turn determined by the author's intentions. Our previous discussion of authorship and

authorial intention in the context of dishes and recipes demonstrates how we can unpack the aesthetic aims of dishes and recipes as being determined by the intentions of their respective creators, thus enabling us to assess uptake success or failure in food in the same manner as outlined by Carroll himself. Still, we might worry that this approach of rigidly tying the uptake notion to authorial intention results in an account of uptake that struggles to make sense of some of the food cases we'd want such an account to be able to make sense of. Consider, for example, recipes that have no clearly defined or known creator(s), as might be the case with traditional dishes that evolved over the course of decades or centuries. Of course, we can still attribute authorship and gustatory intentions to someone preparing a particular instance or version of such a traditional dish, but in the absence of a known original creator it seems less clear how we should go about determining the gustatory intentions behind the traditional dish in and of itself, and thus how we should unpack its conditions for uptake success or failure.<sup>4</sup> A way around this worry could be to argue that we don't actually need epistemic access to the original creator's actual intentions: It might suffice to turn to the dish itself as providing sufficient evidence to infer the creator's intentions.

The literature on the interpretation of art highlights further problems that arise from the emphasis on authorial intention as determining a work's aesthetic aims. In this literature, actual intentionalism (or author-intentionalism, as it is alternatively referred to) is, roughly, the view that the meaning<sup>5</sup> of a work is determined by the actual intentions of the author. It should be noted that this view is more extreme than Carroll's

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<sup>4</sup> It's worth noting that this worry doesn't just arise when thinking about Carroll's uptake notion in the context of food. The problem arises in the art domain as well; consider, for example, the analogous cases of traditional folk tales or traditional folk songs.

<sup>5</sup> It might be said that the issue of determining a work's meaning is different from the issue of determining a work's aims. This is true, but the issue of determining a work's aims can still be considered an interpretative issue. Thus, even though they typically emphasise work meaning, the positions put forward in the literature on the interpretation of art are of relevance to the issue of work aims, too.

own view on this issue. (I will come back to Carroll's own view, which is a hybrid of some of the accounts discussed below.) One criticism of actual intentionalism is that it implies that the intentions of the author take precedent over the work itself in determining the work's meaning. This seems problematic, as Currie (2004) has pointed out, in cases where the author poorly executed their intentions. In such cases, it might be that the work itself fails to give any intelligible indication of the author's intentions whereas things such as interviews with or letters by the author might much more accurately reflect their actual intentions. When it comes to the project of trying to determine a work's meaning, the work itself is thus reduced to being merely a small piece of potentially unreliable evidence out of a much larger overall evidential base that the audience ought to consider. But this seems misguided; art critics base their reviews, at least primarily, on the work as it is. A film critic might talk to the director, or do additional research on the production behind the film, but it might seem odd if the critic based their interpretation of the film primarily on such additional information when the film itself more plausibly suggests a radically different interpretation. We can readily translate this worry to the food case using one of our earlier examples: the white sauce that its creator intended to elicit surprise in eaters because of its tomato taste. If the white sauce doesn't actually taste of tomato, then the sauce as it is doesn't give any intelligible indication of the creator's actual intentions. In that case, we can only correctly determine the creator's actual intentions — which, if we accept actual intentionalism, in turn determine the sauce's uptake conditions — by turning to alternative sources of evidence of the creator's intentions other than the sauce itself. But, as in the film case, it might strike one as odd to have to completely disregard the nature of the sauce as it is when determining the sauce's aesthetic aims.

The literature on interpretation and intention in art has a variety of alternatives to

actual intentionalism on offer<sup>6</sup> that might seem better placed to resolve such worries, provided they can be adapted to the food case. More generally, however, it should be noted that the overarching issue of the applicability of Carroll's notion of uptake to the food domain doesn't ultimately depend on us adopting any particular account of how to unpack a food's aesthetic aims. We can unpack the uptake conditions of food (and art) in line with actual intentionalism as exemplified through my initial, more extensive discussion above, but Carroll's account of the notion of uptake does not necessarily commit us to any particular conception of how we should determine a food's (or artwork's) aesthetic aims: We might just as well adopt alternative views like hypothetical intentionalism or anti-intentionalism regarding food (and art), which I will briefly discuss below. The point is that the issues of, on the one hand, which specific account of a food's aesthetic aims we should accept, and, on the other hand, what an account of the notion of uptake in relation to food might look like, are, ultimately, conceptually distinct.

Hypothetical intentionalism (Levinson, 2010) shifts emphasis away from efforts to determine the author's actual intentions in the vein of actual intentionalism, and towards what we can optimally *hypothesise* the author's intentions to have been. This move from the author's actual intentions to our best hypotheses about the author's intentions strikes me as readily adaptable to the food domain. In brief, hypothetical intentionalism about food would amount to something like this: The aesthetic aims of, say, a dish as presented to a suitably prepared and discriminating eater, are determined by the best hypothesis about the aesthetic intentions of the person who prepared the dish (and not by the actual aesthetic intentions of the person who prepared the dish). Anti-intentionalist or conventionalist views do away with considering actual or hypothesised

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<sup>6</sup> See Irvin (2006) for an overview of the prominent positions in this literature.

authorial intent altogether. Instead of pointing to a particular author to recover a work's aesthetic aims, such views appeal to linguistic, representational or other kinds of conventions alongside relevant background knowledge about aspects of the work to determine the correct understanding and appreciation of a work. It seems plausible to me that we should be able to develop an account of the correct understanding and appreciation of a food in an anti-intentionalist spirit; indeed, the approach to appeal to something like gustatory conventions plus relevant background knowledge about aspects of the food such as its ingredients, methods of preparation, or cultural history seems especially apt for unpacking the uptake conditions of traditional dishes. Value-maximising accounts (Davies, 1982) are a subtype of anti-intentionalism that hold that the correct understanding and appreciation of a work is the one that maximises the work's aesthetic value; again, it strikes me as plausible that we should be able to develop an account whereby the correct understanding and appreciation of a food is that which maximises its aesthetic value. Finally, Carroll himself would likely argue that his own preferred version of actual intentionalism, which he dubs modest actual intentionalism and has fleshed out elsewhere (Carroll, 2000), is itself able to account for the sorts of problematic cases we've discussed above. Modest actual intentionalism is, roughly, a disjunctive blend of standard actual intentionalism and conventionalism: A work's, or food's, correct understanding and appreciation is determined by the creator's actual intentions if these intentions are supported by the work itself; otherwise, an appeal to socio-aesthetic conventions determines the correct understanding and appreciation of the work.

I will not further explore how any of these accounts can be adapted to the food case, or pursue the question of which of these accounts we should accept. As discussed previously, the project of developing and defending any particular account of how we

should determine a food's aesthetic aims is, ultimately, conceptually distinct from our original concern with whether Carroll's notion of uptake is applicable to the food domain. It's sufficient for our ability to unpack the notion of uptake in the food domain to have *some* way of making sense of a food's aesthetic aims relative to which we can then assess uptake success or failure. I have suggested that there are several candidates for an account of how we can unpack a food's aesthetic aims, thus leading me to conclude that Carroll's notion of uptake is indeed applicable to the food domain.

### **Relevant Moral Responses to Food**

In this section, I will explore the ethical aspect of ethical-aesthetic value interaction as conceived by Carroll. I will do so by taking a closer look at the kinds of moral responses that Carroll discusses as having the capacity to give rise to ethical-aesthetic value interaction by virtue of precluding or enhancing uptake in the art case. I will then consider the implications of this regarding the applicability of Carroll's account to the food case. But first, let's briefly recap.

Carroll's account of ethical-aesthetic value interaction rests on the idea that our ethical responses to works of art can sometimes causally affect our aesthetic responses to those works by virtue of either positively enhancing or negatively interfering with our aesthetic responses. As regards the aesthetic aspect of this interaction, Carroll's measure for assessing whether our aesthetic responses are being affected in the relevant ways is framed in terms of his notion of uptake. In the preceding section, I fleshed out Carroll's notion of uptake and argued that it is applicable to the food domain: Successful uptake amounts to some food having some aesthetic aim and succeeding in realising that aim in eaters, whereas failed uptake amounts to some food having some aesthetic aim but failing to realise that aim in eaters. I further argued that there are several candidate accounts for how we can unpack what a food's aesthetic aims are but that the



applicability of Carroll's notion of uptake to the food domain ultimately doesn't hinge on which particular account we accept. With this in mind, we can now sharpen our account of the sorts of moral responses that, for Carroll, can give rise to ethical-aesthetic value interaction, which in turn will enable us to refine our understanding of the logical structure and scope of such interaction.

In his elaboration of moderate moralism, Carroll focuses on cases drawn from what he refers to as the 'narrative arts'; these include "narrative literature, drama, film, painting and so on" (Carroll, 1996, p. 227). For our purposes, the narrative arts may be contrasted with the purely abstract arts, which correspondingly include abstract film, painting, music, dance, and so on. The relevant distinction between the narrative and the purely abstract arts is that only the former feature narrative content. This narrative content is typically conveyed through semantic means, as is generally the case in narrative literature, or through representational means, as is generally the case in narrative painting, or through a combination of semantic and representational means, as is generally the case in narrative film and drama but also in narrative paintings that feature writing as well as in narrative literary works that feature illustrations, such as comic books.

Carroll contends that narratives are incomplete structures that need to be 'filled in' by the audience. This incompleteness and need to be filled in extends to both descriptive as well as to emotive aspects of a narrative. Narratives are incomplete on the descriptive level because they don't explicitly specify everything that could possibly be specified about every aspect of the narrative. The resultant descriptive gaps are instead filled in by the audience. If a story is set in ancient Egypt, the author doesn't need to specify that characters didn't travel by air or that light sources weren't electric. We presume this to be the case. Narratives are incomplete on the emotive level in the same

way: We can make sense of a character's relief for having passed their viva without the author needing to explain the emotional basis of that relief. The emotions involved in this way are frequently moral emotions, such as when we are able to grasp that a character is being treated fairly, or unfairly, without the author explicitly articulating that or why this is the case.

Carroll further argues that it is commonplace for narratives to be specifically *designed* in such a way as to be filled in by certain moral responses in the audience, and further that the intelligibility of a narrative often depends on whether it succeeds in activating those moral responses in the audience: "One does not, I submit, understand the wedding scene in Ken Russell's production of *Madame Butterfly* unless one feels that Pinkerton is unworthy of his bride." (Carroll, 1996, p. 228) It is this reference to the aesthetic design of the work that links the audience's moral responses to a work to the notion of uptake: If it is among the aesthetic aims of a work to activate a particular moral response in audiences and the work succeeds in activating that moral response in audiences, we have a case of successful uptake. On the contrary, if it is among the aesthetic aims of a work to activate a particular moral response in audiences and the work fails in activating that moral response in audiences, we have a case of failed uptake. In both cases, Carroll's criterion for genuine ethical-aesthetic value interaction is met: The audience's moral responses to the work causally affect their aesthetic responses to the work in the relevant ways, that is, via securing or precluding uptake.

We are now in a position to sharpen our understanding of the cases Carroll discusses as examples of ethical-aesthetic value interaction. Consider what Carroll says about *American Psycho*'s failure to secure uptake:

Failure to elicit the right moral response, then, is a failure in the design of the work, and, therefore, is an aesthetic failure. The design (the aesthetic structure)

of *American Psycho* is flawed on its own terms because it rests on a moral mistake, supposing, as it does, that the sustained, deadpan, clinically meticulous dismemberments it presents to the reader could be taken in a comically detached manner. (Carroll, 1996, p. 233)

Let's assume that Carroll's analysis of the aesthetic aims of *American Psycho* as a satirical work of fiction is correct, and that the intended *aesthetic* response to the events depicted in the book is indeed one of deadpan amusement. According to this analysis, the intended *ethical* response that is supposed to causally give rise to this intended aesthetic response is to take the events depicted 'in a comically detached manner'. But morally sensitive audiences psychologically resisted this; they refused, to borrow Carroll's phrase, the book's invitation to share what they considered a defective moral perspective. This "tactical error" (Carroll, 1996, p. 234) in turn interfered with the book's capacity to achieve the intended aesthetic effect in audiences, and thus we have a case of uptake failure. A work like *Emma*, in contrast, amounts to a case of successful uptake because morally sensitive audiences accept the work's invitation to share its illuminating moral perspective. This in turn enhances the work's capacity to achieve its intended aesthetic effects, which include for audiences to be absorbed in and moved by the narrative.

Carroll's focus on narrative content poses a significant challenge for the prospect of applying his account of ethical-aesthetic value interaction to the case of food. Food seems, for the most part, devoid of the kind of content that Carroll discusses, and it is not obvious that foods are incomplete structures that are designed to be filled in with our ethical responses as is commonly the case with narratives. Some foods do, however, feature what seem like potentially relevant kinds of content. Some of these cases involve representational content, such as when foods are made to visually resemble

other things. Examples of this include chocolate Easter bunnies, cartwheel-shaped pasta, star-shaped cinnamon biscuits, representational (as opposed to abstract) Latte Art, or chocolate crumbs made to resemble soil. Food can also feature semantic content, as is the case with writing on a birthday or wedding cake, or with words or sentences constructed using alphabet pasta. Other cases that might be thought of as featuring potentially relevant kinds of content include religious foods that have some particular symbolic or literal significance. For example, the sacramental bread and wine consumed during the Christian rite of the Eucharist commemorating the Last Supper represent (or are, depending on one's theological position) the body and blood, respectively, of Jesus. Fried potato latkes eaten during the Jewish festival of Hanukkah symbolise the miracle of the oil. Finally, another way in which we might consider some foods to feature content in a relevant sense is in virtue of foods representing other foods, as is the case, for example, with vegetarian or vegan alternatives to foods that are traditionally non-vegetarian or non-vegan such as burgers, sausages, cheese, and so on.

It might be arguable that cases like sacramental bread or potato latkes feature narrative content in the sense that they refer to the narratives of the Last Supper and the miracle of the oil, respectively. A worry with this line of thought could be that it doesn't seem obvious that if some food refers to an existing narrative that this then implies that the food *itself* features the narrative content of that narrative. The foods clearly point to those narratives, but perhaps this doesn't establish that the foods in their own right therefore feature or otherwise narratively express anything about those narratives. Of course, foods that refer to existing narratives in this way might nevertheless modify our perceptions of and responses to those narratives in various ways; indeed, this strikes me as the primary way in which such foods might be thought to feature some sort of content in their own right. In cases such as sacramental bread or potato latkes, we might

think of this content as consisting in providing something like a commemorative or celebratory framing for the narrative being referred to. Note, however, how this is a different kind of (non-narrative) content that is one step removed from the narrative content of the narrative being referred to.

Even if one is not convinced by this argument and instead thinks that foods like sacramental bread or potato latkes do feature narrative content in their own right, it seems relatively clear that the content involved in the other cases mentioned above does *not* amount to narrative content. Narrative content generally seems to imply some sort of sequence of events: Event A happened, then event B happened, and so on. But this sort of structure doesn't seem to be applicable to cases like bunny-shaped chocolate, a cake that has 'Happy Birthday' written on it, or a vegan burger patty. You could, of course, spell out an entire novel using alphabet pasta, but that would be an idiosyncratic use of alphabet pasta bearing little resemblance, and thus being of limited relevance, to ordinary instances of eating alphabet pasta.<sup>7</sup>

A lack of distinctly narrative content in the food domain needn't necessarily be an issue though. While narratives are a fruitful source of fairly clear examples of the kind of interaction Carroll wants to develop an account of, it seems there could be cases in the art domain that fit Carroll's account but that don't involve any distinctly narrative content in their own right. A statue inspired by *American Psycho*, for example, might not in and of itself feature any narrative content yet still feature content that is incomplete in virtue of requiring audiences to fill it in with their ethical responses. Likewise, a non-narrative caricature might still constitute a content-bearing structure that is incomplete in the relevant sense that it is designed to provoke an ethical response

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<sup>7</sup> In any case, a novel spelled out using alphabet pasta would seem to be a case of literature made from edible materials rather than food that features content, and would thus be orthogonal to our concerns here.

in the audience.

It seems plausible that at least some of the foods mentioned previously as featuring potentially relevant kinds of content constitute incomplete content-bearing structures. We can see this most clearly to be the case where a food is symbolic or representative of something that isn't in itself explicitly expressed in the food via representational or semantic means. This applies to cases such as sacramental bread and wine, or to potato latkes, where the symbolic significance isn't explicitly expressed in the food itself but instead requires filling in on the part of eaters. It also applies, to some extent, to chocolate Easter bunnies: while the bunny-content of a chocolate Easter bunny is expressed explicitly via representational depiction, the symbolic content of Easter bunnies as representing fertility is not explicitly expressed in the chocolate Easter bunny in and of itself. So, to the extent that it can be considered part of the design of contemporary chocolate Easter bunnies to be symbolic of fertility (and we might very well think that this symbolic significance has been lost over time), it is up to us to fill in this fertility content when eating a chocolate Easter bunny. A vegan burger patty constitutes an incomplete content-bearing structure in the sense that the patty in and of itself doesn't explicitly express that it is designed to resemble a meat patty. The vegan patty might be designed to resemble a meat patty as regards visual appearance and flavour, but it is ultimately for us to fill in the reference to meat while eating the vegan patty. Lastly, in cases where foods feature semantic content, it's again plausible that at least some of them constitute incomplete content-bearing structures. The writing on a birthday or wedding cake doesn't need to explicitly articulate why a birthday or a wedding is reason for celebration for us to be able to make sense of it.

We are now in a position where we can unpack the notions of uptake success and failure in the food domain. If a food constitutes an incomplete content-bearing

structure that is designed to be filled in by eaters by virtue of activating a particular response in them, and the food succeeds (or fails) in activating that response in eaters, we have a case of successful (or failed) uptake. If a cake with birthday or wedding themed writing on it is presented on an occasion that is entirely unrelated to a birthday or a wedding, then it seems plausible that the cake would fail to secure uptake in eaters insofar as they are unlikely to respond to the cake with agreement that there is reason for celebrating a birthday or a wedding.

If there is a moral component to the response being activated, or failing to be activated, then it consequently looks like we have a case of Carroll-type ethical-aesthetic value interaction in food. We can think of the writing on a wedding cake as inviting us to share a certain moral perspective insofar as moral considerations are relevant to an evaluation of whether or not the wedding is reason for celebration. If we think, to echo Carroll's own example referenced previously, that one spouse is not worthy of the other spouse, the cake will fail to secure uptake to the extent that we are likely to resist, on moral grounds, the cake's invitation to share the perspective that the wedding is reason for celebration. In contrast, if we think that the spouses are worthy of each other, we are likely to take up the cake's invitation to share the perspective that the wedding is reason for celebration, and thus the cake successfully secures uptake. We can similarly imagine scenarios involving foods like sacramental bread and wine or potato latkes, where uptake may be enhanced or precluded to the extent that one morally agrees with or resists the commemorative or celebratory perspective manifested by those foods. In all of these cases it looks like we have ethical-aesthetic value interaction that is in accordance with Carroll's account of such interaction.

It might be objected that in the case of the wedding cake, it seems as though the issue of whether or not the cake secures uptake isn't really to do with the aesthetic

design of the cake itself. Whether or not we think that the spouses are worthy of each other doesn't depend on whether the cake succeeds in making this point but rather has to do with the real world context surrounding the cake. To put it another way, it doesn't seem like it's the cake's fault if it doesn't succeed in activating this response in eaters. This is different from a case like *American Psycho*, where it is the work's fault that it doesn't succeed in activating the intended response in readers. Unlike *American Psycho*, the cake's aesthetic design thus isn't really compromised on its own terms, and so we're not actually dealing with a case of ethical-aesthetic value interaction after all.

I'm not convinced by this objection. I think there is, ultimately, no reason to think that the food case is not analogous to the art case. The cake has been designed in such a way that successful uptake depends on whether eaters are willing to take up the cake's invitation to share the perspective that the wedding is indeed reason for celebration. It is true that whether or not eaters are likely to agree with this will depend on real world context, but we should consider the cake as having been designed with this context in mind. If eaters psychologically resist, on moral grounds, the cake's invitation to share the perspective that the wedding is reason for celebration, then the aesthetic design of the cake is founded on the same kind of "tactical error" that the aesthetic design of a case like *Triumph of the Will*, the film that portrays Hitler as heroic, is founded on. The two cases are thus analogous.

The mere fact that there can be cases of Carroll-type ethical-aesthetic value interaction in the food domain doesn't mean however, that such cases are common. Indeed, the cases we discussed so far seem distinctly niche and uncharacteristic of the ways in which we typically engage with the majority of foods. A more widespread case is perhaps that of vegetarian or vegan alternatives to foods that are traditionally non-vegetarian or non-vegan, such as burgers, sausages, or cheese. Again, it seems like we



can find cases of ethical-aesthetic value interaction here if we accept the view that it's commonly part of the gustatory design of such foods to invite eaters to recognise the food as morally acceptable representations of meat products. Aesthetic uptake of a vegan burger patty might then be enhanced due to the moral satisfaction experienced when recognising the vegan patty as a morally acceptable representation of meat, rather than actually being meat. Or aesthetic uptake could be precluded if the vegan patty commits the "tactical error" of being *too* meat-like such that it imports some of the psychological resistance one might experience towards real meat, thus undermining one's ability to take up the vegan patty's invitation to recognise it as a morally acceptable food that represents meat but isn't actually meat.<sup>8</sup> Still, even if the case of alternatives to meat and dairy products might be moderately commonplace in our typical engagement with foods, it seems that the applicability of Carroll's account of ethical-aesthetic value interaction to the food domain is ultimately limited to only a few special cases.

The seemingly limited applicability of Carroll's account of ethical-aesthetic value interaction to the food domain raises the question of how we should evaluate the empirical evidence I discussed earlier. To recall, this evidence suggests that people's moral responses to food can positively or negatively affect their aesthetic responses to food. At first glance, it might be tempting to say that this is evidence for the occurrence of ethical-aesthetic value interaction in food, and that this interaction is of a kind that's in line with Carroll's account of ethical-aesthetic value interaction. But this would be too quick. The problem, I will now argue, is that it's not clear with these empirical findings that moral responses are affecting aesthetic responses in the right way, that is,

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<sup>8</sup> The case of lab-grown meat as a morally acceptable alternative to conventional meat might provoke particularly intense versions of both the enhancement and the preclusion case.

via uptake preclusion or enhancement.

The empirical studies that have found an effect of ethical information on the taste liking of food used ethically valenced (that is, ethically good or bad) information regarding a food's means of production, such as describing the food as fair trade or organic. The moral responses that gave rise to the observed effect of ethical information on taste liking were thus participants' moral responses to this ethically valenced information regarding the food's means of production. Carroll himself doesn't explicitly discuss any cases where moral responses to an artwork's means of production play a role, although of course this isn't in and of itself sufficient to establish that the means of production of art or food are never relevant in the context of Carroll's account of ethical-aesthetic value interaction. Indeed, the case of the vegan burger patty discussed above looks like a case where ethical responses related to a food's means of production are involved in ethical-aesthetic value interaction. But that doesn't mean that moral responses to a food's means of production are always the sorts of moral responses that can give rise to ethical-aesthetic value interaction. This is not to suggest that moral responses to a food's means of production are somehow inappropriate or unjustified unless they are the sorts of moral responses that can give rise to ethical-aesthetic value interaction; we just need to distinguish between those moral responses that can give rise to such interaction and those that cannot. I will now argue that, for the most part, moral responses to an artwork's or food's means of production seem to be outside the scope of the kinds of moral responses that can give rise to ethical-aesthetic value interaction.

Consider again the role of the notion of uptake in Carroll's account: Genuine ethical-aesthetic value interaction can only occur at the level of the immediate experience of and engagement with a work (or food) itself, and the relevant scope of this experience and engagement is determined by the work (or food) and its aesthetic

aims. Moral (or aesthetic) responses elicited by aspects of a work that play no role in the aesthetic design of the work thus cannot give rise to ethical-aesthetic value interaction on Carroll's terms because they are of no relevance in the assessment of whether the work has succeeded or failed in realising its aesthetic aims in audiences, that is, whether it succeeds or fails in securing uptake. The aesthetic experience afforded by the work on its own terms is paramount.

Take the pyramids. The aesthetic design of the pyramids doesn't seem to involve the invitation for beholders to morally approve of slave labour such that the extent to which the pyramids successfully realise their aesthetic aims is affected by whether beholders accept or resist that invitation. To restate the same point in simplified terms: It doesn't seem to be the case that having the intended aesthetic response to the pyramids — say, to find them awe-inspiring — involves accepting an invitation to morally approve of slave labour. Or take Michael Haneke's film *Caché*, which features a sequence where a rooster is beheaded and for which a real rooster was actually killed. It doesn't seem to be the case that the film's aesthetic design involves the invitation for viewers to morally approve of killing chickens. It might be that some viewers' ability to have the intended aesthetic response to the sequence — to find it shocking — is undermined if they are morally appalled by the sequence. The same applies to the pyramids; some beholders might not be able to find the pyramids awe-inspiring because they are morally appalled by their means of production. But, crucially, it doesn't seem that either of these cases would be examples of the works failing on their own terms. There is a sense in which uptake is being interfered with in both cases, but it's not the relevant kind of uptake preclusion whereby works are designed to elicit certain moral responses in audiences but fail to elicit those moral responses. This doesn't mean, of course, that we're not justified in morally condemning the means of production of

aesthetic objects, or that there might not be various practical moral reasons to limit our aesthetic engagement with objects that were produced, or are being produced, by ethically reprehensible means. But these are moral issues that don't in and of themselves compromise the aesthetic design of an object on its own terms by way of ethical-aesthetic value interaction.

To reconcile the empirically observed effect of ethical information on food liking with ethical-aesthetic value interaction in the mould of Carroll's account of such interaction, we would need to establish that it is part of the aesthetic aims of a food to invite eaters to share a moral perspective regarding the food's means of production such that the food's capacity to achieve its intended aesthetic aims is enhanced or diminished depending on whether eaters accept or resist that invitation. But it seems to me that the food case is not substantively different to the art case in this regard. The gustatory aims of coffee that was produced using child labour don't seem to involve the invitation for eaters to morally approve of child labour such that the extent to which the coffee successfully realises its gustatory aims is affected by whether eaters accept or resist that invitation. Similarly, it doesn't seem to be the case that having the intended gustatory response to foie gras — say, to find it delicious — involves accepting an invitation to morally approve of the practice of force feeding geese. Of course, it might be that some eaters' ability to have the intended gustatory response to the coffee, or to the foie gras, is undermined if they are morally appalled by the respective means of production. But, like in the art case, it doesn't seem that in either of these cases the foods would be failing on their own gustatory terms. There would, of course, be a sense in which uptake is being precluded by a negative moral response to the foods' means of production. But, as was the case in the art domain, this doesn't seem to be the aesthetically relevant kind of uptake preclusion whereby a food is designed to elicit a certain moral response in

eaters but fails to elicit that moral response.

Of course, there might be exceptions where it does look as though it's part of the aesthetic design of food to invite us to share a moral perspective regarding its means of production. We already discussed the case of the vegan burger patty; other examples might include foods produced (and presented) in accordance with farm-to-table or nose-to-tail principles where it seems arguable that the aesthetic aims of the food involve the invitation for eaters to share the moral perspective that the principles behind its means of production are morally virtuous. Nonetheless, it still seems like the scope for ethical-aesthetic value interaction to occur in the food domain is ultimately limited to a few relatively non-standard cases, and we don't yet seem to be in a position where we can account for the body of empirical evidence that suggests that moral responses to a food's means of production — the most obvious way in which foods are associated with moral issues — can enhance or preclude aesthetic uptake of that food.

Here's a potential objection to this conclusion. If it looks as though having a negative ethical response to coffee that was produced using child labour might interfere with the aesthetic uptake of the coffee, then perhaps it should be said that it's part of the aesthetic aims of the coffee that this sort of uptake preclusion does not occur. This needn't necessarily lead us to the conclusion that it's therefore among the aesthetic aims of the coffee to invite drinkers to share the moral perspective that child labour is morally acceptable; such a conclusion still seems unwarranted as there's no clear sense in which the coffee extends this sort of invitation to drinkers. Rather, the thought would be that it's among the aesthetic aims of the coffee for drinkers to have *no* moral reaction, or for drinkers to separate their moral reaction from their aesthetic reaction. There are two things to be said in reply to this objection. First, it's not obvious that having no moral reaction can really count as having a moral reaction at all. Thus, rather

than establishing interaction between the ethical and the aesthetic in virtue of it being among the aesthetic aims of food for eaters to have particular moral reactions to the food's means of production, it seems as though the objection really establishes autonomism, that is, the lack of any interaction between the ethical and the aesthetic. This brings us to the second point, which is that it seems unconvincing in the first place to suggest that it's part of the aesthetic aims of food for eaters to separate their moral responses from their aesthetic responses. In the context of thinking about the interaction between the ethical and the aesthetic, it would be circular reasoning to stipulate that the ethical needs to be separated from the aesthetic; after all, the nature of the connection, if any, between the ethical and the aesthetic is precisely the issue at stake. It is much more convincing to argue, as I have attempted to do, that there is typically no moral component to the intended aesthetic response to food.

### **Korsmeyer's *Means Moralism* and the Notion of a *Trace***

In the remainder of the current chapter, I will discuss one further potential route to establishing the aesthetic relevance of a food's means of production: Korsmeyer's *means moralism* about food (Korsmeyer, 2012). I will first introduce the notion of a *trace* and its role in Korsmeyer's account. I will argue that Korsmeyer's apparent commitments regarding the relative valence of ethical-aesthetic value interaction in food reveal her account to be committing the *moralistic fallacy*. However, even when putting such considerations about the relative valence of the interaction aside, I will further argue that there's a deeper problem for Korsmeyer's account because it's not clear that the notion of a trace is able to bear the conceptual weight Korsmeyer puts on it in establishing ethical-aesthetic value interaction in food to begin with. I'll close by suggesting how ethical-aesthetic value interaction in food might nevertheless be possible, and how the notion of a trace might play a role in such interaction.

Korsmeyer's means moralism rejects the idea that the ethical status of a food's (or artwork's) means of production cannot be aesthetically relevant. Korsmeyer's criterion for the aesthetic relevance of an object's means of production is that the means leave a perceivable *trace* in the object and thus become tangible in the experience of that object (Korsmeyer, 2012, pp. 94-95). An example for such a trace in the domain of art might be the visible brushstrokes in a painting, whereas an example of a trace in the domain of food might be the woody flavour notes imparted to a wine as a result of being stored in wooden casks. Korsmeyer maintains that where the means of production have some moral valence (that is, they're ethically good or bad), we get interaction between the ethical and the aesthetic. An example of this in the art domain might be a painting that was produced by means of dipping a fish in paint and letting it flop around on the canvas as it dies, or the previously discussed case of *Caché*, where the killing of the rooster forms a part of the film itself. An example in the food domain might be foie gras, where the force-feeding of geese results in the distinct taste of fatty liver. Note that Korsmeyer's trace criterion excludes cases such as the pyramids, or coffee that was produced using child labour, because the ethically relevant aspects of their respective means of production are not apparent in the perceptual features of the pyramids or the coffee.

### **Korsmeyer and the Moralistic Fallacy**

As regards the scope and relative valence of ethical-aesthetic value interaction, Korsmeyer's means moralism is analogous to conventional moralism about art: She maintains that a moral defect always makes for an aesthetic defect, while a moral virtue always makes for an aesthetic virtue (Korsmeyer, 2012, pp. 95-98). For the time being, let's grant that the trace condition successfully establishes the aesthetic relevance of a food's means of production (I'll consider some problems with the notion of trace later),

and focus only on Korsmeyer's moralist commitments regarding the relative valence of the interaction.

Korsmeyer introduces the idea of aesthetically relevant means of production using a morally neutral example:

When I was a child and drank milk from local farms, the milk in the spring was often redolent of the sprouting onion grasses that the cows grazed on. In that case, the assessment of the means was aesthetically negative, though morally neutral. The point is that an aspect of the means of milk production had a direct causal effect on the flavour. (Korsmeyer, 2012, pp. 94-95)

The negative aesthetic evaluation in this case seems to be determined entirely in virtue of the unpleasant flavour of the milk. However, when Korsmeyer goes on to consider cases of morally valenced traces, the aesthetic valence of those morally valenced traces seems to be determined entirely in virtue of the moral valence of the trace in question: Moral defectiveness always makes for aesthetic defectiveness, and vice versa. Korsmeyer's argument to the effect that the respective aesthetic and moral valences always align in this way remains somewhat obscure; she ultimately just seems to stipulate that the valence carries over from the moral domain into the aesthetic domain. Korsmeyer gets closest to spelling out her thesis that the respective moral and aesthetic valences always align when she discusses deliberate cruelty in the treatment of animals as a clear example of immorality in the means of food production:

[W]e can take cruelty of means of production as a fairly clear example of how aesthetic taste properties merge with moral taste properties, advancing the idea that if a trace of cruelty is present in flavour, this is an instance of a moral defect being at the same time an aesthetic defect. (Korsmeyer, 2012, p. 95)

However, the thesis that ethical and aesthetic valences always align in this



manner seems problematic. It would imply that, if the trace in Korsmeyer's initial milk example had some moral valence, then the valence of the milk's aesthetic evaluation would somehow change accordingly. Suppose it was morally commendable for cows to graze on onion grasses because, say, grazing on onion grasses led to significant improvements in a cow's quality of life. It seems that Korsmeyer would then say that to the extent that it is morally commendable for cows to graze on onion grasses, the aesthetic valence of the onion flavour is to that extent positive as well. But it's not clear how this way of evaluating the aesthetic valence of the onion flavour in the milk is to be reconciled with Korsmeyer's earlier aesthetic evaluation of the onion flavour. After all, Korsmeyer herself already judged the onion flavour to be an aesthetic defect in the milk, and she hasn't provided an argument as to why considerations regarding the ethical valence of a given trace should inevitably make a difference to the aesthetic valence of that trace in the way that Korsmeyer seems to think it does. Rather, it seems that the hypothetical ethical virtuousness of having cows graze on onion grasses would amount to a case where the relative valence of the interaction would be inverted, because an ethical virtue would result in an aesthetic defect. Thus, it seems that contextualism (or, as one might alternatively refer to it, immoralism) is the more plausible account as regards the relative valence of ethical-aesthetic value interaction in food.

This line of argument echoes Liao and Meskin's (2018) response to Korsmeyer's account. Liao and Meskin pick up Korsmeyer's discussion of trace, but they dispute the aptness of her moralist commitments and argue for contextualism instead. They discuss a number of examples where the relative valence of the interaction seems to be inverted. One of their cases is the Japanese cooking practice *ikizukuri*, where fish is cut up alive and then served immediately to maximise its freshness. Liao and Meskin argue that cutting up fish alive constitutes a clear moral defect due to the pain inflicted on the fish

(Liao & Meskin, 2018, pp. 673-674). However, the resultant trace of this practice amounts to an aesthetic virtue, namely freshness. Hence, ikizukuri seems to provide a non-hypothetical case where the relative valence of the interaction is inverted, which is in turn indicative of contextualism.

An alternative way to make sense of Korsmeyer's moralist commitments regarding the relative valence of ethical-aesthetic value interaction in food would be to interpret her as advancing a claim about the intrinsic connectedness of ethical and aesthetic valences. If there was such an intrinsic connectedness between ethical and aesthetic valences, then this could explain Korsmeyer's commitment to the idea that ethical defects always make for aesthetic defects, and vice versa. This is because an intrinsic connectedness between ethical and aesthetic valences would generate a kind of normative force whereby moral valence carries over, or should carry over, into aesthetic valence.<sup>9</sup> Indeed, I think that such an intrinsic connectedness between ethical and aesthetic valences is what Korsmeyer has in mind when she says that a "moral taint [...] turns [delicious flavours] (or perhaps should turn them) to ashes in the mouth" (Korsmeyer, 2012, p. 97).

The problem with such a claim about the intrinsic connectedness of ethical and aesthetic valences is that it needs to be supplemented with something else for ethical-aesthetic value interaction to actually get off the ground. Otherwise, it runs afoul of the *moralistic fallacy* (D'Arms & Jacobson, 2000). If we simply stipulate that the aesthetic valence of a given trace should align with its moral valence, it seems that all we have is

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<sup>9</sup> Korsmeyer's discussion (Korsmeyer, 2012, pp. 95-98) seems to suggest that she thinks of this carryover of valence as going both ways. Thus, it's not only the case that positive ethical evaluation implies positive aesthetic evaluation, but also that positive aesthetic evaluation implies positive ethical evaluation (the same applies to evaluations with negative valence). However, Korsmeyer seems to think that the normatively correct ethical-aesthetic valence is ultimately determined by the valence of a purely ethical evaluation of the object under consideration.

the *moral* claim that we shouldn't aesthetically enjoy something that is immoral and vice versa. But, as D'Arms and Jacobson have argued, this kind of *moral* sentiment is compatible with aesthetic enjoyment nonetheless being the appropriate *aesthetic* response to the immoral thing. To assume that moral (in)appropriateness automatically translates into (in)appropriateness in non-moral domains would be to commit the moralistic fallacy.<sup>10</sup>

Consider again the morally neutral onion flavour in the milk: Korsmeyer judged the appropriate aesthetic response to be negatively valenced. If cows grazing on onion grasses had positive moral valence, then I take Korsmeyer to be suggesting that to the extent that the onion flavour has positive moral valence, the appropriate aesthetic response should to that extent be positively valenced as well. But we need something more for the *moral* appropriateness of an *aesthetic* response to have any purchase on the *aesthetic* appropriateness of that aesthetic response. What aesthetic response is *morally* appropriate does not in and of itself affect what aesthetic response is *aesthetically* appropriate. But given that we're interested in how the moral status of food affects its aesthetic value, rather than how the moral status of food affects what aesthetic evaluations of food are morally appropriate, Korsmeyer's moralist commitments ultimately seem orthogonal to our concerns.

I have argued that Korsmeyer commits the moralistic fallacy, which in turn undermines her moralist commitments regarding the relative valence of ethical-aesthetic value interaction in food. However, the objection I offered doesn't affect Liao and Meskin's (2018) contextualism, and it has no bearing on whether the notion of a trace

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<sup>10</sup> It is arguable that classic moralism about art as advanced by Gaut (1998a) commits the moralistic fallacy, too (or that if it doesn't, it collapses into something like Carroll's moderate moralism). This is a further reason why I have chosen Carroll's moderate moralism as the general focal point of this chapter: Carroll's account provides a psychologically grounded mechanism for ethical-aesthetic value interaction rather than relying on claims about some intrinsic connectedness between ethical and aesthetic valences.

succeeds in laying the conceptual groundwork for any kind of ethical-aesthetic value interaction in food to begin with. I'll now consider the notion of a trace in more detail, arguing that it doesn't initially seem to succeed in establishing ethical-aesthetic value interaction. I'll then conclude the chapter by suggesting how ethical-aesthetic value interaction in food might nonetheless be possible, by relating the notion of a trace to Carroll's moderate moralism.

### **Problems With the Notion of a Trace**

Korsmeyer claims that a trace occurs where a morally valenced "aspect of the means of [food] production [has] a direct causal effect on the flavour" (Korsmeyer, 2012, p. 95). A trace is a "quality [that] is simultaneously aesthetic and moral" (2012, p. 95), resulting in "the coimplication of aesthetic and moral quality in taste" (2012, p. 95). Korsmeyer's characterisation of trace invites the objection that mere coimplication does not entail interaction. According to this objection, traces are instances where moral properties and aesthetic properties merely share a common reason, or common cause, but don't actually interact. In Liao and Meskin's *ikizukuri* example, the fish is as fresh as possible for the same reason as it is morally defective, that reason being that the fish was cut up alive. But this doesn't establish that the aesthetic virtue, freshness, is in any way grounded in the moral defectiveness in and of itself. The problem here is analogous to the classic barometer example in the philosophy of causation literature (Jeffrey, 1969): Whilst the occurrence of a storm and the change in a barometer reading have a common cause, it's not the case that the change in the barometer reading affects the occurrence of the storm in any way. Of course, if moral properties in and of themselves had tangible taste properties, there would be a straightforward sense in which they might affect a food's aesthetic evaluation; however, I'm at least not aware of any argument to the effect that one can literally taste moral properties.

An alternative approach to establish ethical-aesthetic value interaction in terms of trace might be to argue that such interaction only occurs if some morally valenced aspect of the means of production is *necessary* to achieve some aesthetically valenced feature in food. This kind of approach would substantially narrow the scope of the trace category. Foie gras, for instance, which might seem like a straightforward example of a trace as the taste of fatty liver is the direct result of a morally defective aspect of foie gras production, might no longer count as an instance of genuine ethical-aesthetic value interaction: It's possible to produce foie gras without the force feeding aspect of traditional foie gras production (Liao & Meskin, 2018, p. 671), so it doesn't seem that foie gras is necessarily morally defective. But if it's possible to produce the same aesthetic virtue without the associated moral defect, then this would seem to undermine the idea that the aesthetic virtue was ever grounded in the moral defect to begin with. Thus, narrowing down the account of ethical-aesthetic value interaction to include only those cases where ethically valenced means are necessarily involved in bringing about some aesthetically valenced feature in food might seem like an appealing proposition.<sup>11</sup>

However, focusing only on morally valenced means that are necessarily involved in bringing about some aesthetically valenced feature does not seem to establish value interaction either. The problem with this approach is that necessity does not in and of itself seem to imply genuine contribution; the appeal to necessity doesn't remove the account from the purview of a version of the common reasons objection discussed previously. Song (2018, p. 289) offers a nice analogy to illustrate why this is so. Imagine there's a particular pigment that is incredibly rare but has an astonishingly beautiful colour. This colour is entirely unique to that particular pigment; it cannot be

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<sup>11</sup> This line of thinking echoes Nannicelli's (2014) argument for the aesthetic relevance of certain aspects of the means of production of an artwork.

recreated by using or mixing alternative pigments. Due to its uniqueness and rarity, the pigment is extremely expensive. Consequently, if a painter wants to use that exact colour in a painting, they necessarily have to pay a large amount of money to get hold of the pigment. Nevertheless, I take it that we wouldn't want to consider the amount of money spent for the pigment as genuinely contributing to the aesthetic value of the resultant painting. Analogously, even if we suppose that the moral defect of cutting up fish alive is a necessary requirement to achieve freshness, this doesn't establish that the moral defect in and of itself genuinely contributes to the fish's freshness. Thus, even if we restrict the scope of ethical-aesthetic value interaction to only those cases that necessarily involve morally valenced traces, we still don't seem to get genuine interaction between the moral and the aesthetic.

I have argued that Korsmeyer's means moralism about food, while showing promise in virtue of being targeted at the most obvious way in which foods are associated with moral issues, commits the moralistic fallacy by assuming that moral valence is intrinsically connected to aesthetic valence. I further argued that it's not clear that the notion of a trace establishes ethical-aesthetic value interaction in food in the way suggested by Korsmeyer and Liao and Meskin to begin with. I will now conclude the chapter by relating the notion of a trace to Carroll's moderate moralism. I will suggest that considering the notion of a trace in the context of Carroll's account could provide a path to establishing ethical-aesthetic value interaction in food in a way that might further be able to accommodate the empirical evidence that indicates that the ethical status of a food's means of production can affect people's liking of food.

### **Traces as Constituting Invitations To Share Moral Perspectives**

Earlier in this chapter, I have argued that Carroll's account of ethical-aesthetic value interaction is in principle applicable to the food domain, but that this applicability

is limited to a few relatively non-standard food cases. The main obstacle was that, generally speaking, it doesn't seem that it is part of the aesthetic design of food to invite us to share a moral perspective regarding its means of production such that the food's capacity to achieve its aesthetic aims is enhanced or diminished depending on whether we accept or resist that invitation.

Recall the objection I considered earlier, that if it looks as though a negative ethical response to coffee produced using child labour might interfere with the aesthetic uptake of the coffee, then perhaps it could be said that it's part of the aesthetic aims of the coffee that this sort of uptake preclusion does not occur. When discussing the objection earlier, I said that this thought shouldn't lead us to the conclusion that it's therefore among the aesthetic aims of the coffee to invite drinkers to share some moral perspective regarding the coffee's means of production, because there's no clear sense in which the coffee extends this sort of invitation to drinkers. Other than coffee that was produced using child labour, I also discussed the case of foie gras. But with the notion of a trace in mind, perhaps there could be a sense in which foods that feature traces, such as foie gras, extend invitations to eaters to share some moral perspective regarding the food's means of production after all. In the case of the coffee, the ethically relevant aspects of its means of production are not apparent in the perceptual features of the coffee. In contrast, in the case of foie gras, the means of production leave a trace in the food; the force feeding of geese is apparent in the taste of the foie gras itself. Thus, perhaps the fact that a morally valenced aspect of foie gras production is perceptually salient in the experience of eating the foie gras could be thought of as involving an invitation to eaters to share a moral perspective regarding the means of production of the foie gras.

The argumentative thrust for this view derives from the idea that the aesthetic

design of foie gras seems compromised on its own terms if eaters reject the taste of fatty liver on the grounds that the taste of fatty liver is the result of ethically defective means. Similarly, it seems like a problem with the aesthetic design of *Caché* if viewers don't respond as intended to the scene where a rooster is beheaded because they morally object to the methods of the aesthetic presentation. Hence, we might think of the taste of fatty liver as implying an invitation for eaters to be morally accepting of the means of production that brought about the taste of fatty liver, and of the scene in *Caché* as implying an invitation for viewers to be morally accepting of the means of production employed to realise the sequence. The fact that foie gras and *Caché* feature traces is important to this idea as it allows for locating the moral invitation in a way that doesn't reach beyond what we might reasonably consider to be part of the aesthetic aims of foie gras and *Caché*. In the case of coffee that was produced using child labour, or in the case of the pyramids, there is nothing in the perceptual experience afforded by the coffee in and of itself, or by the pyramids in and of themselves, that is suggestive of the morally defective means of production. The notion that the coffee's or pyramids' respective aesthetic designs involve an invitation to share a moral perspective regarding their means of production thus seems like aesthetic overreach, as it were.

Note that it is not necessarily a problem for this view that traces merely establish the coimplication of the ethical and the aesthetic. It is sufficient for traces to establish mere coimplication, because the mechanism grounding ethical-aesthetic value interaction still relies on Carroll's account of uptake preclusion and enhancement: Ethical-aesthetic value interaction occurs if eaters resist the foie gras' invitation to be morally accepting of the means of production that caused the taste of fatty liver. Traces thus merely provide the entry point for Carroll's account to be applicable to the issue of morally valenced means of food production. Similarly, it doesn't seem to matter that we



are able to produce foie gras without the force feeding aspect. We can make sense of the notion of traces constituting invitations to eaters to share some moral perspective on a case by case basis, such that foie gras that was produced without force feeding geese simply doesn't extend such an invitation to eaters. Of course, to be able to distinguish between the two types of foie gras assumes an awareness of what type of foie gras one is eating at the time. But this doesn't seem particularly problematic; some level of awareness of what one is engaging with aesthetically is commonly presumed in accounts of how aesthetic evaluation proceeds, and it is also a point made by Korsmeyer in her articulation of means moralism (Korsmeyer, 2012, pp. 90-91). It is true that we might also know of the coffee how it was produced when we're drinking it. However, this doesn't change the fact that the coffee's morally defective means of production are not perceptually salient in the flavour experience afforded by the coffee, which in turn means that we lack a way of relating the coffee's morally valenced means of production to the aesthetic design of the coffee.

The notion of traces as establishing the necessary link between the ethical and the aesthetic as far as means of production are concerned provides a promising framework for an account of ethical-aesthetic value interaction that retains the spirit of Carroll's account of such interaction. Such an account might be able to accommodate the body of empirical evidence that suggests that moral responses to a food's means of production can enhance or preclude aesthetic uptake: If traces make the morally valenced aspects of a food's means of production psychologically more salient during food consumption, then this could help explain the apparent empirical effect of ethical information on food taste liking. Further, if it was the case that ethical information only, or at least more strongly, affects food liking if the ethical information is suggestive of the presence of traces in the food, then this would lend empirical support to this

philosophical account of ethical-aesthetic value interaction in food. To be able to say more about this, however, we need to know more about where people expect the means of production of food to leave perceivable traces in food, and whether the ethical information used in empirical studies implied the presence of traces. The next chapter begins to explore these questions in more detail, by conducting a systematic review of the empirical literature on the effect of ethical information on taste evaluations of food. Chapter Three will then build on this by reporting a set of three studies that investigated the role of traces in the context of the apparent effect of ethical labelling on food taste evaluations.

## **Chapter Two: A Systematic Review of the Literature on the Effect of Ethical Information on the Perceived Taste Quality of Food**

The aim of this chapter is to present a systematic review of the empirical literature on the effect of ethical information on the perceived taste quality of food, where “perceived taste quality of food” refers to the degree of deliciousness attributed to food by way of hedonic sensory evaluation.

The previous chapter discussed the possibility of ethical-aesthetic value interaction in food from a philosophical perspective, and closed with the suggestion that such interaction might be possible in cases where a food’s ethically valenced means of production leave a perceivable *trace* in the food. A particular focus of the current review was thus on categorising previous research on the effect of ethical information on the perceived taste quality of food based on whether the ethical information that was employed in the research might plausibly be thought to imply the presence of traces or not.

Another aspect that was discussed in the previous chapter was the relative valence of ethical-aesthetic value interaction. Moralists (Gaut, 1998a) and moderate moralists (Carroll, 1996) uphold a valence constraint, that is, they think that ethical merits can only ever result in aesthetic merits and ethical defects can only ever result in aesthetic defects. In contrast, contextualists (Eaton, 2012) reject this valence constraint; they think that, at least in some cases, ethical merits can result in aesthetic defects, and ethical defects can result in aesthetic merits. Another focus of the current review was thus on investigating the relative valence of any observed effect of ethical information on the perceived taste quality of food: Is ethically positive (or negative) labelling only ever associated with a more positive (or negative) sensory evaluation, or is ethically positive (or negative) labelling sometimes associated with a more negative (or positive)

sensory evaluation?

There are two previous literature reviews that touch on the issue of how ethical labelling affects taste evaluations (Fernqvist & Ekelund, 2014; Piqueras-Fiszman & Spence, 2015). The review by Fernqvist and Ekelund (2014) explored ethical labelling in the broader context of how various kinds of credence-enhancing food labels affect consumer liking of food. Fernqvist and Ekelund report that cues related to organic, Fairtrade, and high animal welfare food production methods — which might vary with respect to whether they are associated with the presence of traces in the food, although Fernqvist and Ekelund do not discuss this — all tended to positively correlate with increased hedonic ratings of food items. Further, participant endorsement (or rejection) of relevant values (e.g. pro-environmental values) moderated this effect in some studies such that greater endorsement of relevant values was associated with a stronger effect of ethical labelling on hedonic ratings. Fernqvist and Ekelund note, however, that some ethicalness-related cues might affect hedonic ratings of foods in ways that are not necessarily related to the perceived ethical status of foods. For example, organic cues are likely to result in greater perceived healthiness of foods (Hughner et al., 2007), and cues that are suggestive of high animal welfare might lead to the perception that foods described as high in animal welfare are safer to eat (Bernués et al., 2003).

The review by Piqueras-Fiszman and Spence (2015) discussed ethical labelling in the broader context of how product-extrinsic cues affect sensory expectations. Product-extrinsic cues are cues that are external to the product, such as food labelling, or the location where food is being consumed. Product-extrinsic cues contrast with product-intrinsic cues, that is, cues that are intrinsic to the product, such as its aroma, or its visual appearance. Piqueras-Fiszman and Spence reach a similar conclusion to Fernqvist and Ekelund as regards the effect of ethical labelling on sensory evaluation:

Positive ethical labelling tends to have a positive effect on sensory evaluation, although it appears that endorsement of relevant attitudes and values can moderate this effect.

Piqueras-Fiszman and Spence also discuss how the effects of product-extrinsic cues on actual consumer experience might be explained when considered through the lens of a range of cognitive neuroscientific approaches. While it is beyond the aims of the current review to provide an overview of such approaches in its own right, Piqueras-Fiszman and Spence's overall conclusion will be briefly sketched below by way of situating the current review in a wider theoretical cognitive neuroscientific context.

Piqueras-Fiszman and Spence note that product-extrinsic cues have the general effect of focusing one's attention to some particular aspect of a product such that this particular aspect becomes relatively more salient in the experience of the product (Spence, 2014). With one's attention thus directed to some particular aspect of a product, Piqueras-Fiszman and Spence propose that the effects of product-extrinsic cues, including ethical labelling, on consumer experience are to a large extent driven by the expectations and beliefs held by consumers prior to tasting the food (Clark, 2013). Specifically, they suggest that if the actual tasting experience in some way violates a consumer's prior expectations and beliefs, then the consumer will likely tend to assimilate their interpretation or evaluation of the experience in the direction of their prior expectations and beliefs to minimise dissonance. Such assimilation is only likely to occur, however, if the dissonance is not too large: If the actual tasting experience violates prior expectations and beliefs to a large enough extent, then the interpretation or evaluation of the experience is unlikely to be assimilated and will thus break with prior expectations and beliefs. Further, Piqueras-Fiszman and Spence point out that the effects of product-extrinsic cues on product experience might not be limited to being merely the result of bias or other cognitive decisional phenomena but that product-

extrinsic cues might also result in genuine perceptual effects. Product-extrinsic cues have been shown to affect expectations at the earliest stages of neurological processing (Woods et al., 2011; Litt & Shiv, 2012), which suggests that cues such as ethical labelling do not merely result in differences in the cognitive interpretation and evaluation of the same perceptual experience, but that cues like ethical labelling can also make a genuine perceptual difference to the sensory experience of tasting ethically labelled foods.

In terms of methodology, both Fernqvist and Ekelund's and Piqueras-Fiszman and Spence's reviews were narrative as opposed to systematic reviews. Further, in neither of these two previous reviews was the focus specifically on the effect of ethical information on the perceived taste quality of food, and neither of these previous reviews attended to the issue of whether perceptions regarding traces might play a role in driving the effect of ethical information on the perceived taste quality of food. The current review thus sought to address these limitations by conducting a systematic review of the empirical literature specifically on the effect of ethical information on the perceived taste quality of food.

## **Method**

### **Formulation of Study Eligibility Criteria (PICOS)**

Study eligibility criteria for inclusion in the current systematic review were formulated in terms of the PICOS criteria (*P*opulation, *I*ntervention, *C*omparison, *O*utcome, *S*tudy design) as set out in the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines (Liberati et al., 2009). In terms of the population criterion, studies had to use only physically and mentally healthy adults as participants to be eligible for inclusion in the review. The intervention criterion was defined such that studies had to provide participants with information (e.g. in the form

of labelling or vignettes) that exhibited some clear ethical valence (that is, ethical goodness or badness). In terms of the comparison criterion, studies had to feature some kind of control or comparison condition that differed in its ethical valence from the intervention condition. It was acceptable but not required for the control or comparison condition to be neutral in regard to ethical valence. The outcome criterion was defined so as to only include studies which quantitatively recorded a participant's hedonic sensory evaluation as a measure of the perceived taste quality of food. No specific further conditions for study inclusion were defined in terms of the study design criterion. Additional characteristics that studies had to exhibit to be eligible for inclusion were for studies to be written in English, and to be published in peer-reviewed academic journals to guarantee a minimum standard of research and data quality.

### **Search Strategy**

Databases searched (accessed via portals indicated in parentheses, where applicable) to identify eligible publications were Web of Science Core Collection (Web of Science), MEDLINE (Web of Science), PsycINFO (Ovid), and Scopus. Databases were searched with no restrictions to publication year. Because the categorisation of records by type of publication proved occasionally unreliable, no restrictions to publication types were applied either. Any records that didn't meet criteria for publication type were identified and excluded at the record screening stage. The complete search strategy for searches performed via Web of Science is presented in Table 1. Search operators were adapted so as to be appropriately formatted for each database (for example, the Web of Science adjacency search operator NEAR is equivalent to ADJ10 on Ovid, and equivalent to W/10 on Scopus). For searches performed via the Web of Science portal, each search term was searched for using the field tags "TS" (topic) and "TI" (title), thus yielding two searches per term. For each

term, these two searches were then combined using an OR operator. Databases accessed via Web of Science were last searched on 20/11/2018. Terms were searched for on PsycINFO (via Ovid) by performing a “keyword search”, with data as of “November Week 3 2018”. Scopus was searched using field codes “TITLE-ABS-KEY” (i.e. search in title, abstract, and keywords). Scopus was last searched on 22/11/2018.

**Table 1**

*Search Strategy (Web of Science)*

Search target	Search terms
<b>“Ethical”</b> (manipulation)	ethic* OR unethical* OR moral* OR immoral* OR amoral* OR (organic* NEAR food*) OR “fair trade” OR fair OR fairly OR (local* NEAR food) OR (local* NEAR produced) OR (animal NEAR welfare) OR sustainab* OR “eco-friendl*” OR *environment* OR (whole NEAR food*) OR vegetarian* OR vegan* OR meat
<b>“Information”</b> (manipulation)	information OR cue? OR signal* OR pack* OR *label*
<b>“Perceived”</b> (outcome)	(expec* NEAR (tast* OR *valu* OR food* OR eat*)) OR (experienc* NEAR (tast* OR *valu* OR food* OR eat*)) OR ((perceiv* OR percept* OR *sensory OR *sensorial OR *subjectiv*) NEAR (tast* OR *valu* OR food* OR eat*)) OR halo
<b>“Quality”</b> (outcome)	(tast* NEAR/99 (food* OR product?)) OR (*valu* NEAR/99 (tast* OR food* OR product?)) OR nice* OR delicious* OR health* OR nutritio* OR prefer* OR aesthetic* OR benefi*
<b>“Food”</b> (outcome)	food* OR eat*
Universal filter	(tast* NEAR/99 (food* OR product?)) OR (*valu* NEAR/99 (tast* OR food* OR product?))

*Note.* Search results for the respective target terms were combined using an AND operator. The result was then further filtered by combining it, using the AND operator, with the results of the “universal filter” search.



## **Selection of Studies and Data Extraction**

Most of the screening process was carried out by the primary reviewer, with a secondary reviewer supporting the screening process to ensure clear and consistent application of study eligibility criteria. Study eligibility criteria were defined in terms of PICOS and are set out in the Formulation of Study Eligibility Criteria section above. Figure 1 contains a PRISMA flow diagram to show an overview of the study selection process. After duplicates were removed and before the primary reviewer conducted the full title screening, both reviewers independently screened a random 5% sample of all remaining records. Any inclusion/exclusion disagreements for this sample were discussed and resolved in accordance with the study eligibility criteria. After the title screening was complete, this process was repeated prior to the abstract screening phase: Both reviewers again independently screened a random 5% sample of the remaining records and disagreements were resolved in discussion. The primary reviewer then conducted the full abstract screening. The remaining articles were independently full-text screened by both reviewers. Both reviewers recorded their inclusion/exclusion decisions with reference to the study eligibility criteria articulated in terms of PICOS, and any disagreements were again resolved in discussion. The final number of records identified for inclusion in the review was 23. Some records included more than one eligible study such that the total number of studies included in the review was 29. Data extraction was carried out by the primary reviewer and a summary table was created (Table 2).

Figure 1

## PRISMA Flow Diagram of the Record Screening and Selection Process

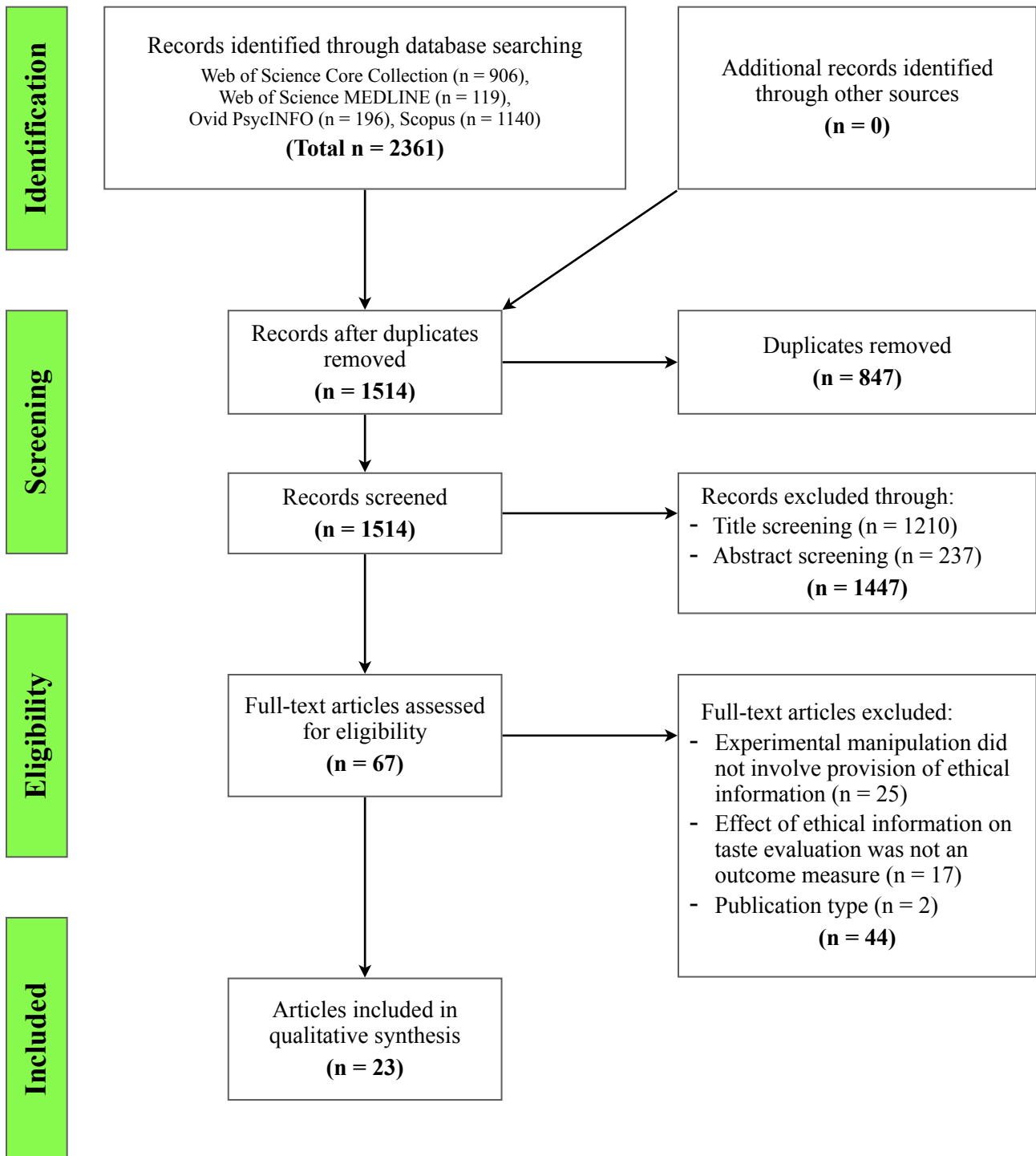


Table 2

Summary Table of Studies Identified Through Database Searching

Study (First author, year)	Participants: N (# female); mean age (SD)	Setting/location	Design	Type of ethically valenced information	Valence of ethical information	Traces likely to be expected	Foods eaten	Samples actually different	Experimental procedure (levels of any factors in parentheses)	Significant (at $p < .05$ ) main effects of ethically valenced information on overall hedonic evaluation	Further related measures	Limitations/potential confounders
<b>Annett, 2008</b>	384 (246); not reported	Canada Various locations in and around Edmonton, AB	Mixed	Organic	Positive	Yes	Bread	Yes	Blind sensory evaluation (organic; conventional) $\rightarrow$ information about organic food production (health; environmental) ( $\rightarrow$ only some groups: WTP [organic; conventional]) $\rightarrow$ labelled sensory evaluation (organic; conventional)	Organic samples evaluated more <b>positively</b> in labelled compared to blind condition	Relevant attitudes; WTP	Attitudes towards health and environmental issues (and, in some conditions, WTP) measured prior to labelled tasting
<b>Apalaza, 2017</b>	90 (34); 43.06 (16.13)	Spain Shopping mall in Vitoria	Between-group	Organic	Positive	Yes	Red wine	No	Labelled sensory evaluation (organic; control)	Samples labelled organic evaluated more <b>positively</b>	Various sensory descriptors; perceived healthiness; purchase intention; relevant attitudes	—
<b>Barsics, 2017</b>	135 (38); 19.4 (1.8) [all students]	Belgium Haute École Albert Jacquard, Namur	Mixed	Insect-based	Positive	Yes	Bread	No	Labelled sensory evaluation (insect-based; control) with or without prior entomophagy information session	No significant effects	Flavour, appearance, odour	Food neophobia; participants were all students
<b>Bernard, 2017</b>	122 (64); not reported	USA Various locations in Delaware	Within-subject	Organic; local	Positive	Yes	Apples	Yes	Sensory evaluation of 3 types of apples: organic (unlabelled; labelled), local (unlabelled; labelled), conventional (unlabelled)	Overall main effects not reported. By experimental setting: - Public park: no significant effects - University campus: labelled organic sample evaluated more <b>negatively</b> than unlabelled organic sample - Natural foods store: labelled organic and local samples evaluated more <b>positively</b> than respective unlabelled samples	Relevant attitudes	—
<b>Bratanova, 2015 (study 2)</b>	112 (84); 20.57 (4.97) [all students]	Belgian university	Between-group	Environmental	Positive; negative	Yes (in ethically positive condition only)	Biscuits	No	Sensory evaluation (company described as environmentally harmful vs. friendly)	No significant effect	Moral satisfaction; taste expectations; purchase intention	Moral satisfaction and taste expectations measured prior to tastings; participants were all students
<b>Bratanova, 2015 (study 3a)</b>	50 (40); 19.32 (1.56) [all students]	British university	Between-group	Fairtrade	Positive; neutral/negative	No	Chocolate	No	Sensory evaluation (company described as Fairtrade vs. conventional)	No significant effect	Relevant attitudes; taste expectations; moral satisfaction; WTP	Relevant attitudes, taste expectations and moral satisfaction measured prior to tasting; participants were all students
<b>Bratanova, 2015 (study 3b)</b>	50 (40); 19.32 (1.56) [all students]	British university	Between-group	Environmental sustainability	Positive; neutral/negative	Yes	Apple juice	No	Sensory evaluation (company described as using local vs. imported ingredients)	No significant effect	Relevant attitudes; taste expectations; moral satisfaction; WTP	Relevant attitudes, taste expectations and moral satisfaction measured prior to tasting; participants were all students

Study (First author, year)	Participants: N (# female); mean age (SD)	Setting/location	Design	Type of ethically valenced information	Valence of ethical information	Traces likely to be expected	Foods eaten	Samples actually different	Experimental procedure (levels of any factors in parentheses)	Significant (at $p < .05$ ) main effects of ethically valenced information on overall hedonic evaluation	Further related measures	Limitations/potential confounders
<b>Caporale, 2004</b>	105 (35); 27 (not reported)	Italy Università degli Studi della Basilicata, Potenza	Mixed	Organic; GM	Positive; ambivalent (although GM is presented as positive)	Yes	Beer	Yes	3x3 labelled sensory evaluation: beers (A; B; C) x information (organic; GM; traditional)	Respective main effects of organic and GM labelling not reported. Organic: <b>positive</b> effect for beer C GM: <b>negative</b> effect for beer A	Food neophobia; expected liking	Food neophobia (for GM); beers were presented as branded; food neophobia and expected liking measured prior to tasting; 60% or participants were students
<b>Cheek, 2017</b>	72 (48); not reported [all students]	USA University classroom in Ithaca, NY	Between-group	Edible packaging	Positive	Yes	Frozen yogurt	No	2x2 labelled sensory evaluation: product form (edible packaging layer intact; edible packaging layer served separately) x information (no edible packaging information; edible packaging information)	<b>Negative</b> main effect of edible packaging information. In particular, <b>negative</b> effect of edible packaging information when edible packaging layer served separately.	Perceived healthiness; purchase intention	Food (technology) neophobia; in those conditions where edible packaging layer was served separately there should have been separate taste evaluations for the respective layers of the product; participants were all students
<b>Enax, 2015</b>	38 (not reported); not reported	Germany Not explicitly stated — presumably laboratory in Bonn	Within-subject	Fairtrade	Positive	No	Chocolate	No	Labelled sensory evaluation (Fairtrade; conventional)	Samples labelled Fairtrade evaluated more <b>positively</b>	Expected taste intensity & pleasantness; fMRI data for separate WTP task	WTP (fMRI task) measured prior to tasting
<b>Hemmerling, 2013</b>	1,797 (1,200); 45.4 (not reported)	Cross-cultural: Italy, Germany, Switzerland, Poland, Netherlands, France	Within-subject	Organic	Positive	Yes	Strawberry yogurt	Yes	Blind sensory evaluation (organic; conventional) → attitude questionnaire “concerning general aspects of food labelling and product information” (not specified further) → labelled sensory evaluation (organic; control)	Organic samples evaluated more <b>positively</b> in labelled compared to blind condition	—	Attitude questionnaire prior to labelled tasting; participants were all organic consumers
<b>Laureati, 2013</b>	157 (100); 23.6 (2.8) [all students]	Italy Università degli Studi di Milano	Within-subject	Organic	Positive	Yes	Strawberry yogurt	Yes	Blind sensory evaluation (3 organic; 5 conventional) → expected liking (3 organic; 5 conventional) → One week later: labelled sensory evaluation (3 organic; 5 conventional)	Main effect of organic labelling not reported. By sustainability level of participants: - Low: no significant effect - Moderate & high: organic samples evaluated more <b>positively</b> in labelled compared to blind condition	Relevant attitudes	Respective blind and labelled tastings being one week apart could confound respective effects of labelling and genuine product differences on hedonic evaluation; participants were all students
<b>Lease, 2014</b>	101 (43); 42.12 (13.0)	Australia CSIRO Animal, Food and Health laboratory, Adelaide	Within-subject	Recycled water in food	Positive	No	Meatballs	No	Labelled sensory evaluation (made with recycled water as an ingredient; made in a factory where recycled water was used to clean equipment; made in a factory where recycled water was used to clean floors; control: made in a factory where tap water was used as an ingredient and for all purposes throughout the factory)	No significant effects	Emotional responses; relevant attitudes including food technology neophobia	Food technology neophobia (neophobia scores were unrelated to hedonic evaluations in this study)

Study (First author, year)	Participants: N (# female); mean age (SD)	Setting/location	Design	Type of ethically valenced information	Valence of ethical information	Traces likely to be expected	Foods eaten	Samples actually different	Experimental procedure (levels of any factors in parentheses)	Significant (at $p < .05$ ) main effects of ethically valenced information on overall hedonic evaluation	Further related measures	Limitations/potential confounders
<b>Lee, 2013</b>	115 (60); 34.24 (16.75)	USA Shopping mall in Ithaca, NY	Within-subject	Organic	Positive	Yes	Cookies; potato chips; yogurt	No	Labelled sensory evaluation (organic; regular)	Main effect of organic labelling not reported. - Cookies labelled organic evaluated more <b>negatively</b> - Potato chips: no significant effect - Yogurt labelled organic evaluated more <b>positively</b>	Taste- and nutrition-related attributes; caloric estimation; WTP; relevant attitudes	—
<b>Lotz, 2013 (study 1)</b>	220 (127); 23.83 (3.11) [all students]	German university	Between-group	Fairtrade	Positive	No	Coffee	Yes	2x2 labelled sensory evaluation: label (Fairtrade; conventional) x coffee (Fairtrade; conventional)	Samples labelled Fairtrade evaluated more <b>positively</b>	—	Participants were all students
<b>Lotz, 2013 (study 2)</b>	241 (140); 23.96 (3.00) [all students]	German university	Between-group	Fairtrade	Positive	No	Chocolate	Yes	2x2 labelled sensory evaluation: label (Fairtrade; conventional) x chocolate (Fairtrade; conventional)	Samples labelled Fairtrade evaluated more <b>positively</b>	Beliefs regarding various product attributes, including expected taste differences between Fairtrade and conventional chocolate; quality expectations	Beliefs and expectations measured prior to tasting; participants were all students
<b>Lotz, 2013 (study 3)</b>	69 (44); 21.69 (4.75) [all students]	German university	Between-group	Fairtrade	Positive	No	Chocolate	No	Labelled sensory evaluation (Fairtrade; conventional)	Samples labelled Fairtrade evaluated more <b>positively</b>	Beliefs about the taste quality of Fairtrade compared to conventional products; affective state	Participants were all students
<b>Napolitano, 2007</b>	84 (39); 28 (not reported)	Italy Potenza	Within-subject	Animal welfare	Positive; negative	Yes	Lamb	Yes	Blind sensory evaluation (higher animal welfare: ewe-reared; lower animal welfare: artificially reared) → expected liking (ewe-reared; artificially reared) → next day: labelled sensory evaluation (ewe-reared; artificially reared)	Main effect of animal welfare information not reported. - Ewe-reared: no significant effect - Artificially reared: evaluated more <b>negatively</b> in labelled compared to blind condition	Expected liking	Authors expressed concern that the 'higher animal welfare' condition might have been perceived as conventional rather than positively ethical; expected liking measured prior to labelled tasting; labelled sensory evaluation carried out one day after blind evaluation; in terms of education level, all participants were at least undergraduate students
<b>Schouteten, 2016</b>	53 (19); 27 (not reported)	Belgium Ghent University	Within-subject	Insect-based	Positive	Yes	Burgers	Yes	Blind sensory evaluation (plant-based; meat-based; insect-based) → expected liking (plant-based; meat-based; insect-based) → labelled sensory evaluation (plant-based; meat-based; insect-based)	Insect-based burger evaluated more <b>positively</b> in labelled compared to blind condition	Perceived quality and nutritiousness; detailed sensory and emotional responses; expected liking, quality, nutritiousness, and emotional conceptualisations associated with labelled burgers	Expected liking, quality, nutritiousness, and emotional conceptualisations associated with labelled burgers all measured prior to labelled tasting; participants were recruited close to the university campus

Study (First author, year)	Participants: N (# female); mean age (SD)	Setting/location	Design	Type of ethically valenced information	Valence of ethical information	Traces likely to be expected	Foods eaten	Samples actually different	Experimental procedure (levels of any factors in parentheses)	Significant (at $p < .05$ ) main effects of ethically valenced information on overall hedonic evaluation	Further related measures	Limitations/potential confounders
<b>Schouteten, 2019</b>	151 (88); 24.2 (not reported)	Belgium Laboratory at Ghent University vs. at home	Mixed	Organic	Positive	Yes	Potato chips; strawberry yogurt; orange juice	No	Labelled sensory evaluation (organic; conventional)	Samples labelled organic evaluated more <b>positively</b>	Detailed sensory and emotional responses; estimated calories; WTP; restrained eating behaviour; relevant attitudes	Emotional responses measured along with overall liking; participants were partly recruited at a university campus
<b>Silva, 2017</b>	126 (88); not reported	Brazil Laboratories in Campinas	Within-subject	Environmental sustainability; organic	Positive	No; yes	Dark chocolate	Yes	Blind sensory evaluation (environmental sustainability; organic) → labelled sensory evaluation (environmental sustainability; organic)	No significant effects	Relevant attitudes; sensory attributes; purchase intention	Relevant attitudes measured prior to labelled tasting; all participants were recruited in a research environment
<b>Simoës, 2015</b>	80 (43); not reported	Brazil Universidade Federal Fluminense, Rio de Janeiro	Within-subject	Environmental sustainability	Positive	No	Prawns	No	Blind sensory evaluation → expected liking → labelled sensory evaluation	Samples evaluated more <b>positively</b> in labelled compared to blind condition	Expected liking	Expected liking measured prior to labelled tasting; participants were all students or university staff
<b>Sörqvist, 2015 (study 1)</b>	48 (37); 27 (not reported)	Sweden University campus	Within-subject	Organic ('eco-friendly' in Sweden)	Positive	Yes	Banana	Yes	2x2 labelled sensory evaluation: label (eco-friendly; conventional) x banana (eco-friendly; conventional)	Samples labelled eco-friendly evaluated more <b>positively</b>	—	Most participants likely to be students or university staff
<b>Sörqvist, 2015 (study 2)</b>	96 (73); 27 (not reported)	Sweden University campus	Mixed	Organic ('eco-friendly' in Sweden)	Positive	Yes	Grapes; raisins	No	Labelled sensory evaluation (eco-friendly; conventional) One group tasted grapes, the other group tasted raisins.	Samples labelled eco-friendly evaluated more <b>positively</b>	Nutrition- and health-related judgments; WTP; social desirability; schizotypy; relevant attitudes	Most participants likely to be students or university staff
<b>Sörqvist, 2015 (study 3)</b>	48 (23); 23 (not reported)	Sweden University campus	Within-subject	Organic ('eco-friendly' in Sweden)	Positive	Yes	Water	No	Labelled sensory evaluation (eco-friendly; conventional)	No significant effect	Nutrition- and health-related judgments; WTP; social desirability; schizotypy; relevant attitudes	Most participants likely to be students or university staff
<b>Sörqvist, 2016</b>	88 (55); 29 (not reported)	Sweden and UK University laboratories	Within-subject	Organic ('eco-friendly' in Sweden); GM	Positive; ambivalent	Yes	Raisins	No	Labelled sensory evaluation (GM and eco-friendly; eco-friendly; GM; conventional)	Main effect of eco-friendly labelling not reported. - Samples labelled eco-friendly evaluated more <b>positively</b> in Swedish sample - Samples labelled GM were evaluated more negatively	Health estimates; WTP; relevant attitudes; social desirability	Most participants likely to be students or university staff
<b>Tang, 2016</b>	74 (41); 19.32 (1.35) [all students]	China Laboratory at Tsinghua University, Beijing	Between-group	Fairtrade	Positive	No	Green tea	No	2x2 sensory evaluation: label (Fairtrade; control) x language used throughout the experiment, including on the labelling (first language: Chinese; second language: English)	Samples labelled Fairtrade evaluated more <b>positively</b> . In particular, Fairtrade labelling had a <b>positive</b> effect in the second language (English) condition.	Purchase intention; beliefs regarding the relationship between social causes of a product and its taste; positive affect	Fairtrade manipulation check prior to tasting excluded all participants who assumed that Fairtrade was an indicator of product quality; participants were all students

Study (First author, year)	Participants: N (# female); mean age (SD)	Setting/location	Design	Type of ethically valenced information	Valence of ethical information	Traces likely to be expected	Foods eaten	Samples actually different	Experimental procedure (levels of any factors in parentheses)	Significant (at $p < .05$ ) main effects of ethically valenced information on overall hedonic evaluation	Further related measures	Limitations/potential confounders
<b>Toschi, 2012</b>	60 (35), not reported	Italy Supermarket	Within-subject	Organic	Positive	Yes	Yogurt	Yes	Blind sensory evaluation (6 samples: 4 organic; 2 conventional) → labelled sensory evaluation (same 6 samples with corresponding organic vs. conventional labelling) → labelled sensory evaluation of the most liked conventional and organic yogurt sample respectively (inverted organic vs. conventional labelling)	Main effect of organic labelling not reported. - One sample evaluated more <b>positively</b> when labelled organic compared to blind evaluation	Additional sensory judgments	Blind and labelled sensory evaluations were carried out on separate days; 53% of participants were aged 61–80
<b>Wiedmann, 2014</b>	66 (not reported); not reported	Germany	Within-subject	Organic	Positive	Yes	Red wine	No	Labelled sensory evaluation (conventional) → information on organic food production methods → labelled sensory evaluation (organic)	Samples labelled organic evaluated more <b>positively</b>	Further hedonic and quality judgments; purchase intention; WTP; relevant attitudes	Potential order effects as samples labelled 'conventional' were always tasted first; organic information provided prior to labelled evaluation

## **Results and Discussion**

Table 2 provides a summary of studies included in the review. Overall, there is evidence that ethically relevant information about a food's production can affect taste evaluations. Out of 29 studies included in Table 2, 22 observed effects of ethical information on taste evaluation. Of these 22, seven observed an effect only some of the time, depending on experimental setting, group of participants, food type, and content of ethical information (Bernard & Liu, 2017; Caporale & Monteleone, 2004; Laureati et al., 2013; Lee et al., 2013; Napolitano et al., 2007; Sörqvist et al., 2016; Toschi et al., 2012). However, none of these seven studies reported whether there was a main effect of ethical information on perceived taste quality. The other 15 studies observed and reported a main effect of ethical information.

### **The Role of Traces in the Effect of Ethical Information on Perceived Taste Quality**

21 studies employed ethical information that might intuitively be thought to imply the presence of traces (15 studies used "organic" or related environmental cues as ethical information, two used "organic" and "GM", two used "insect-based", one used animal welfare information, and one used edible packaging). However, it is not clear to what extent people's intuitions regarding the occurrence of perceivable traces drive the effect of ethical information on perceived taste quality.

In the case of organic food, the means of production might plausibly be expected to result in a noticeable trace. As distinct from the studies included in the current review, previous research has suggested that people do indeed expect there to be noticeable differences between organic and conventional products (Bratanova et al., 2015; Prada et al., 2017; Schuldt & Hannahan, 2013). The results of the current review suggest that people's expectations regarding the occurrence of traces in the case of organic food seem relatively consistent with their actual taste experiences. Of the 17 studies that used



organic or related environmental labelling, seven found a main effect on taste evaluations (Annett et al., 2008; Apaolaza et al., 2017; Hemmerling et al., 2013; Schouteten et al., 2019; Sörqvist et al., 2015, studies 1 and 2; Wiedmann et al., 2014). One of these studies was a cross-cultural study of 1,797 participants from six European countries (Hemmerling et al., 2013). Four studies found no significant effects (Bratanova et al., 2015, studies 2 and 3b; Silva et al., 2017; Sörqvist et al., 2015, study 3). However, the findings of these four studies don't necessarily undermine the conclusion that organic labelling tends to affect taste evaluations: In one study, the lack of significant results is likely to be attributable to the food product used (water), which was deliberately chosen to eliminate the effect of the organic label (Sörqvist et al., 2015, study 3). Further, the generalisability of the other three studies is limited as participants were either all students (Bratanova et al., 2015, studies 2 and 3b) or were recruited in an academic research environment (Silva et al., 2017). The lack of significant effects in Silva et al. (2017) could be indicative of cultural contexts moderating the effect of organic labelling, as this study was conducted in Brazil whereas all other studies using organic cues were conducted in Europe or North America.

There is some evidence that ethical information can affect perceived taste quality even in cases where it might seem implausible to associate the ethical information that was used in the research with the occurrence of traces (for example, workers being paid fair wages). In five studies, participants evaluated the taste of products that were labelled "Fairtrade" more positively than their conventional counterparts (Enax et al., 2015; Lotz et al., 2013, 3 studies; Tang et al., 2016). Two of these studies (Lotz et al., 2013, study 3; Tang et al., 2016) explored whether participants believed that Fairtrade products tasted differently to conventional products. Both found that a majority did not believe this. In one study, the effect of Fairtrade information

persisted although participants had indicated, prior to tasting chocolate, that they didn't believe Fairtrade made a difference to the taste of chocolate (Lotz et al., 2013, study 2).

Overall, the results of the current systematic review suggest that there is conflicting evidence regarding the hypothesis that perceptions regarding the occurrence of traces drive the effect of ethical information on taste evaluations. Eleven studies reported results that are in tension with this hypothesis (ignoring the seven studies that did not report main effects of ethical information): In five cases, no effect was observed when traces might plausibly be expected (Barsics et al., 2017; Bratanova et al., 2015, studies 2 and 3b; Silva et al., 2017; Sörqvist et al., 2015, study 3); in six cases, an effect was found when the occurrence of traces seems implausible (Enax et al., 2015; Lotz et al., 2013, 3 studies; Simoes et al., 2015; Tang et al., 2016). This is contrasted by the same number of studies (eleven) that reported results that are consistent with the hypothesis that perceptions regarding the occurrence of traces drive the effect of ethical information on taste evaluations: Nine studies observed an effect when traces might plausibly be expected (Annett et al., 2008; Apaolaza et al., 2017; Cheek & Wansink, 2017; Hemmerling et al., 2013; Schouteten et al., 2016; Schouteten et al., 2019; Sörqvist et al., 2015, studies 1 and 2; Wiedmann et al., 2014); and two studies observed no effect when the occurrence of traces seems implausible (Bratanova et al., 2015, study 3a; Lease et al., 2014).

The evidence reported in the current review is insufficient, however, to substantiate any robust conclusions about the extent to which perceptions regarding traces drive the effect of ethical information on perceived taste quality. This is because we lack a more general understanding of what ethically relevant food production methods people actually think noticeably affect food products. It can't just be assumed where people expect traces. Among the set of studies reported in the next chapter is thus

one study, Pilot Study 1, that sought to explore in more detail people's intuitions regarding the occurrence of traces across a varied range of morally valenced means of food production.

### **The Relative Valence of the Effect of Ethical Information on Perceived Taste Quality**

Studies that observed an effect of ethical information on perceived taste quality have reported conflicting results in terms of the relative valence of this effect. In the majority of these studies, ethically positive information such as organic (e.g., Hemmerling et al., 2013) or Fairtrade (e.g., Lotz et al., 2013) labelling was associated with increased taste liking. However, a minority of studies that observed an effect found that the relative valence of the effect could be reversed, such that positively valenced ethical information was associated with a decrease in taste ratings (Cheek & Wansink, 2017; Lee et al., 2013; Bernard & Liu, 2017; Caporale & Monteleone, 2004). These findings need to be interpreted cautiously, however. The ethically positively valenced information that was supplied to participants in the study conducted by Cheek and Wansink (2017) described frozen yogurt as containing a layer of edible packaging. In the study conducted by Caporale and Monteleone (2004), beer was described, in ethically positive terms, as having been produced using genetically modified yeast. In these two studies, it seems plausible that the negative effect of the ethically positive information on taste ratings was primarily driven by negatively valenced affective reactions related to food neophobia or disgust, and less so by a reaction specifically to the positive ethical valence of the supplied information. It is thus not clear to what extent the results of these two studies should be taken into consideration when evaluating the overall pattern of results with respect to the relative valence of the effect of ethical information on taste evaluation.

The concern that unrelated reactions may have driven the negative effect of positively valenced ethical information on taste ratings does not apply to the studies conducted by Lee et al. (2013) and Bernard and Liu (2017), however. Lee et al. (2013) found that cookies that were labelled organic were evaluated more negatively compared to cookies that were not labelled organic. Bernard and Liu (2017) found that among a sample recruited at a university campus, apples that were labelled organic were evaluated more negatively than apples that were unlabelled. This was not the case in different experimental settings, however: Bernard and Liu observed the opposite effect among a sample that was recruited at a natural foods store (that is, apples that were labelled organic were evaluated more positively than unlabelled apples), and they observed no effect among a sample that was recruited at a public park.

Several studies (e.g., Laureati et al., 2013; Sörqvist et al., 2015; Bernard & Liu, 2017; Annett et al., 2008) have further found the effect of ethical information on taste evaluation to be moderated by the degree to which participants endorse relevant ethical attitudes and values such as being concerned for the environment or caring about sustainability issues. For example, Laureati et al. (2013) found that participants who were concerned or uncertain about sustainability issues evaluated strawberry-flavoured yogurt more positively when the yogurt was labelled organic as opposed to tasted blind, but they observed no effect of the organic labelling in participants who were indifferent towards sustainability issues.

There are a number of potential explanations for the observed variance in effects reported across studies. Studies have generally discussed two potential causal mechanisms for the effect of ethical information on taste evaluation. The first proposed mechanism is that the experience of positive (or negative) moral *affect* drives the effect of ethical information on taste liking (Lotz et al., 2013; Bratanova et al., 2015). On this

view, ethically valenced information causes a valenced affective reaction in a participant, which in turn leads the participant to adjust their taste rating in line with the valence of the affective reaction. A positive affective reaction thus leads to a higher taste rating, while a negative affective reaction leads to a lower taste rating. The proposed affect mechanism could help to explain why some studies have observed the effect of ethical information on taste evaluation to be moderated by ethical concern: Participants who endorse (or reject) relevant ethical attitudes and values might be more (or less) likely to experience the affective reaction that in turn drives the effect of ethical information on taste evaluation.

The second proposed mechanism is based on the *assimilation/contrast* model (Laureati et al., 2013; Simoes et al., 2015). (The assimilation/contrast model is similar to the mechanism proposed by Piqueras-Fiszman and Spence (2015) and discussed in the introduction to this review, but Piqueras-Fiszman and Spence articulate their view at a deeper explanatory level (that is, in terms of neurological processes) so it wouldn't be entirely accurate to refer to their view as the assimilation/contrast model.) On the assimilation/contrast model, a participant's expectations prior to the tasting experience play a central role: Participants will generally adjust their perception of a product so that their perception is more in line with what they expected (assimilation). However, if the difference between expectations and actual experience is large enough, a participant might adjust their perception so that the difference between expectations and actual experience is magnified (contrast).

On the assimilation/contrast model, previously learned associations between, on the one hand, ethically valenced food labels such as organic or Fairtrade, and, on the other hand, perceived product attributes such as taste quality, will thus play an important role in terms of shaping participants' expectations prior to the actual tasting experience,

which will in turn direct participants' perception of the actual tasting experience. Some of the observed variance in the effect of ethical information on taste evaluation across studies could thus be explained in terms of cultural differences in these learned associations. For example, a study that investigated perceptions of organic products in the US found that participants, especially those less concerned about environmental issues, expect organic foods to be less tasty than non-organic foods (Schuldt & Hannahan, 2013), while another study with US participants found no effect of organic labelling on expected taste (Ellison et al., 2016). This might thus help to explain the previously discussed findings by Lee et al. (2013) and by Bernard and Liu (2017), where organic labelling was associated with negative taste evaluations, as both of these studies were conducted in the US. In contrast, Prada et al. (2017) observed the opposite expectation in Portugal: Across two studies, participants indicated that they expect organic foods to be tastier than non-organic foods, and the effect was more pronounced among participants more concerned about environmental issues. Bratanova et al. (2015) observed a similar association between organic labelling and greater expected taste quality in a European cross-cultural sample. This might thus help to explain why studies that used organic labelling and that were conducted in Europe have tended to find organic labelling to be associated with increased taste evaluations (e.g., Hemmerling et al., 2013; Sörqvist et al., 2015; Schouteten et al., 2019; Apaolaza et al., 2017): If participants expect organic foods to taste better than non-organic foods, then this expectation might affect their taste perception in line with assimilation such that they evaluate organically labelled samples more positively than samples that are not labelled organic.

Bratanova et al. (2015) propose that the mechanism underlying the effect of ethical information on food liking is driven by affect *as well as* by expectations: Their

proposed causal pathway is that the perceived ethicalness of a food product induces moral satisfaction (that is, an affective response) in participants. Bratanova et al. suggest that the experience of moral satisfaction raises the expected taste quality of food, and that this expectation in turn leads to a more positive actual taste experience.

A further aspect that may have contributed to the observed variance in the effect of ethical information on perceived taste quality concerns the type of food product used in the research. While Lee et al. (2013) found organically labelled cookies to be evaluated more negatively compared to cookies that were labelled regular, they observed the opposite effect for yogurt (that is, samples labelled organic were liked more than samples labelled regular), and they observed no effect for potato crisps. Other studies that have found no effect of ethical labelling on taste evaluations have tended to use indulgent and heavily processed foods such as biscuits (Bratanova et al., 2015) or chocolate (Bratanova et al., 2015; Silva et al., 2017). It could thus be hypothesised that the indulgent, “guilty pleasure”-type character of such foods may conflict with recognising the foods as ethically good, leading to the perception of indulgent foods as being lower in quality when they are described in ethically positive terms (van Doorn & Verhoef, 2011; Raghunathan et al., 2006). It is important to note, however, that several other studies included in the current review do not seem to support such a hypothesis, as they have found positively valenced ethical information to be associated with increased taste liking of indulgent foods such as chocolate (Enax et al., 2015; Lotz et al., 2013, studies 2 and 3) or potato crisps (Schouteten et al., 2019). Overall, the findings of the current systematic review thus paint an inconsistent picture with regard to the question of whether the indulgent character of some foods moderates the effect of ethical information on taste liking. The Lab Study reported in the next chapter employed indulgent foods (cookies and crisps) as study foods to be tasted by participants in order

to generate new data that might help to resolve this ambiguity arising from the existing literature.

### **Limitations and Conclusion**

Two kinds of major limitations were common among studies included in the current review. The first common major limitation concerns the homogeneity of study participants: 10 out of 29 studies explicitly reported that all their participants were students, and a further 10 out of 29 studies indicated that at least a significant proportion of their participants were recruited on or near university research environments (reported in Table 2). This means that roughly two-thirds of all studies included in the current review might be limited in their generalisability to the wider population due to a likely lack of representativeness in their study samples. One study in particular, however, could be considered as offering somewhat of a counterweight to this lack of representativeness: The study by Hemmerling et al. (2013) was a cross-cultural study with 1,797 participants from six European countries. Future research in this area should try, as much as possible, to use more diverse samples of study participants.

The second major limitation that was common among studies included in the current review was of a methodological nature: 13 out of 29 studies asked participants to respond to items such as attitude questionnaires, manipulation checks, taste expectations, or willingness to pay *before* participants tasted the labelled food samples (reported in Table 2). By asking participants to respond to these items before evaluating the food samples, these studies may have introduced various kinds of biases that may have distorted participants' taste evaluations. For example, by recording participants' taste expectation or willingness to pay prior to tasting the food samples, participants might be motivated to evaluate the food samples in ways that are consistent with their previous responses. Of course, as discussed in the previous section, participants' prior



expectations might affect their evaluations regardless. However, by forcing participants to become explicitly aware of their own expectations prior to tasting the samples, the effect of prior expectations on evaluations might be more pronounced than it otherwise would have been. Similarly, when participants are asked to respond to attitude questionnaires before evaluating the food samples, then this might have the effect of explicitly activating various attitude- and value-related concepts in participants that would otherwise not have been explicitly activated. The activation of such concepts prior to tasting might cause participants to second-guess what the study is asking them to do after they responded to the attitude questionnaires, or it might amplify social desirability effects (Fisher, 1993).

The current review itself also has some limitations. The search strategy that was implemented to search academic databases had a deliberately narrow focus and was last executed towards the end of 2018. The narrow focus was a consequence of the approach adopted to develop the search terms, whereby the research question that motivated the review was adapted into search terms by focusing on the key words (Table 1). The risk of devising a search strategy with a narrower focus is that some relevant papers are missed from the database searches. However, the search results included all of the relevant papers known to the author prior to conducting the review, as well as many additional relevant papers not previously known to the author, so the search strategy was judged appropriate for the purposes of the current review.

Overall, there is evidence that ethical information can affect the perceived taste quality of food. The current systematic review has revealed the nature of this effect to be somewhat inconsistent, however. While the majority of studies included in the review found an effect of ethical information on perceived taste quality, some studies did not observe such an effect. As regards the role that perceptions regarding traces

might play in driving the effect of ethical information on perceived taste quality, the current review has found mixed results. Some studies have observed an effect of ethical information on taste evaluation where traces might plausibly be expected, while some studies have observed an effect of ethical information on taste evaluation even though it seems implausible for traces to be present in the food. No robust conclusions regarding the role of traces can be drawn from this data, however, as not enough is known about people's intuitions regarding which ethically relevant food production methods actually leave noticeable traces in food products. This shortcoming in the existing literature is addressed in the next chapter, which reports a set of three studies that explore the role of traces in the context of the effect of ethical information on perceived taste quality.

Further, while the respective valences of ethical information and taste evaluation in the existing literature have generally aligned such that positively valenced ethical information was associated with increased taste liking, in some cases the relative valence of the effect of ethical information on taste evaluation was reversed such that positively valenced ethical information was associated with decreased taste liking. The overall pattern of results across all studies included in the current review thus seems to be incompatible with the valence constraint upheld by (moderate) moralism. Instead, the pattern of results seems consistent with contextualism: At least in some cases, it appears that positive ethical valence is associated with negative taste evaluation.

### **Chapter Three: A Set of Empirical Studies Exploring the Notion of a *Trace***

Chapter One considered the applicability of the philosophical debate on ethical-aesthetic value interaction in art to the case of food. The suggestion that concluded the chapter was that ethical-aesthetic value interaction in food might be possible when morally valenced means of food production leave a noticeable trace in the food. Based on this suggestion, it might thus be hypothesised that ethical information which is suggestive of the presence of traces in the food should affect taste evaluations to a greater extent than ethical information which is not suggestive of the presence of any traces in the food.

Chapter Two contained a systematic review of the literature on the effect of ethical information on taste evaluation. As noted in the introduction of Chapter Two, Piqueras-Fiszman and Spence have suggested that product-extrinsic cues such as ethical labelling have the general effect of focusing one's attention to some particular aspect of a product such that this particular aspect becomes relatively more salient in the experience of the product (Spence, 2014). A potential mechanism for the hypothesised role of the notion of a trace in the context of the effect of ethical information on taste evaluation might thus be that ethical cues that are associated with the presence of noticeable traces in the food are relatively more salient during the perceptual experience of the food compared to ethical cues that are not associated with the presence of noticeable traces.

However, the results of the systematic review reported in the previous chapter did not permit a general conclusion as regards the role of traces in the context of the effect of ethical information on taste evaluation: Some previous studies have found an effect of ethical information using ethical information that might reasonably be expected to be suggestive of the presence of traces, such as organic labelling

(Hemmerling et al., 2013; Sörqvist et al., 2015; Schouteten et al., 2019; Annett et al., 2008). Other studies have found an effect of ethical information using ethical information that might be expected *not* to be suggestive of the presence of traces, such as Fairtrade labelling (Enax et al., 2015; Lotz et al., 2013; Tang et al., 2016). In two of these studies (Lotz et al., 2013; Tang et al., 2016), ethical information had an effect on taste liking even though a majority of participants indicated that they did not believe that Fairtrade products tasted differently to conventional products.

These findings appear to be in conflict with the idea that ethical information only has an effect on taste liking if the ethical information supplied to participants is suggestive of the presence of traces. However, previous studies have not explored whether the effect of ethical information on taste liking might nonetheless be greater for such ethical information, compared to ethical information that is not suggestive of the presence of any traces. The majority of previous studies have also not checked whether participants thought that the ethical information provided in the studies implied the likely presence of noticeable traces in the food.

Only one previous study has explicitly attempted to explore the role that the notion of a trace might play in carrying the effect of ethical information on taste liking (Armstrong et al., 2019)<sup>12</sup>. In this study, participants were asked to taste and rate identical pieces of chocolate. The chocolate pieces were accompanied by vignettes that described the chocolate's alleged production methods. There were four experimental vignettes that manipulated the factors ethical information Valence (Ethically Positive vs. Ethically Negative) and Type (Trace vs. No Trace; that is, whether the ethical information was suggestive of traces or not). Specifically, the four production methods

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<sup>12</sup> This paper was published after the systematic review reported in the previous chapter was completed.

that the individual vignettes described were organic (Ethically Positive and suggestive of Trace), non-organic (Ethically Negative and suggestive of Trace), high worker wages (Ethically Positive and suggestive of No Trace), and low worker wages (Ethically Negative and suggestive of No Trace). There was also a control vignette that described the chocolate as having been produced by workers on typical wages using standard agricultural production methods.

The study found a main effect of ethical information valence whereby chocolate that was described in ethically positive terms was rated higher in taste liking compared to both chocolate that was described in ethically neutral terms and chocolate that was described in ethically negative terms. The study also found a main effect of ethical information Type (Trace vs. No Trace): Chocolate that was described in a way so as to be suggestive of traces was generally rated higher in taste liking compared to chocolate that was described in a way so as to be not suggestive of traces.

These findings are only partially consistent with the hypothesised role of traces: It was hypothesised that ethical information which is suggestive of the presence of traces in the food should affect taste ratings to a greater extent than ethical information which is not suggestive of the presence of any traces in the food. In Armstrong et al.'s study, chocolate that was described in ethically positive terms was rated higher in taste liking in a Trace compared to a No Trace condition, thus indicating a stronger effect of the (positive) ethical information in the Trace compared to the No Trace condition (as was predicted). But chocolate that was described in ethically negative terms was *also* rated higher in taste liking in a Trace compared to a No Trace condition, thus indicating a weaker effect of the negative ethical information in the Trace compared to the No Trace condition, which is the opposite of what was predicted.

However, a significant weakness of the study was that it was merely speculated

what kinds of ethical information would be perceived by participants to be suggestive of the presence or absence of traces in the food. The vignettes used to manipulate ethical information Type also conflated Trace vs. No Trace information with information pertaining to different moral domains (specifically, environmental and human welfare issues) which may have introduced cognitive dissonance or bias effects associated with particular moral domains. Furthermore, only one food product, namely chocolate, was used.

A further aspect in regard to which previous research has reported conflicting results is the relative valence of the effect of ethical information on taste evaluation. The majority of previous studies has found positively valenced ethical information such as organic or Fairtrade labelling to lead to an increase in taste liking, but some studies have found the relative valence of the effect to be reversed, such that positive ethical information was associated with a decrease in taste liking (Lee et al., 2013), while other studies found no significant effects in either direction (Bratanova et al., 2015; Silva et al., 2017). Studies that have found no effect, or that have found the relative valence of the effect to be reversed, have tended to use indulgent and heavily processed foods such as cookies (Lee et al., 2013), biscuits (Bratanova et al., 2015), or chocolate (Bratanova et al., 2015; Silva et al., 2017). Some studies have further found the ethical concern of participants to play a role in whether, and how, ethical information affects food liking. For example, Laureati et al. (2013) observed a positive effect of organic labelling on liking of strawberry-flavoured yogurt in participants who were concerned or uncertain about sustainability issues, but they found no effect in participants who were indifferent towards sustainability issues.

The aim of the set of studies reported in this chapter was thus to clarify some of the ambiguities arising from the existing literature on the effect of ethical information

on taste evaluation. Specifically, two hypotheses were tested: (1) information regarding food production methods that are perceived as ethical is associated with greater taste liking compared to information regarding food production methods that are perceived as unethical for two types of heavily processed, indulgent foods (cookies and crisps); and (2) this difference in taste liking between ethical and unethical information is greater in the case of (un)ethical information that is reliably associated with the presence of traces compared to (un)ethical information that is reliably associated with the absence of traces.

These hypotheses were tested by conducting three studies: two online-based pilot studies and one lab-based study. The aim of the pilot studies was to identify a set of suitable short descriptions of food production methods (vignettes) that were reliably associated with the presence or absence of traces (Pilot Study 1) and that were reliably perceived as ethical or unethical (Pilot Study 2). The Lab Study then employed the vignettes identified on the basis of the results of the two pilot studies to directly test the two hypotheses specified in the preceding paragraph.

### **Pilot Studies**

In Pilot Studies 1 and 2, participants were presented with vignettes that described ethically valenced food production methods. Vignettes consisted of pairs of descriptions of food production methods such that each vignette contrasted two alternative production methods of the same food product that differed in their respective moral valence. One half of the vignettes was designed such that it was predicted that participants would expect noticeable differences between the two products; the other half was designed such that it was predicted that participants would not expect any noticeable differences. Whether or not noticeable differences were *actually* likely to occur was of secondary concern as the study was exploring people's *intuitions* regarding

the occurrence of traces. Food production methods described in the vignettes covered the moral domains Environment, Human Welfare, and Animal Welfare.

### **Pilot Study 1**

In Pilot Study 1, participants were shown vignettes one at a time and asked whether they would expect noticeable differences between the two products contrasted in the vignette if they were to consume the products.

#### ***Method***

**Participants and Ethics.** One hundred participants took part in the study (48 female; mean age = 32.78,  $SD = 11.93$ ). Participants were recruited via Prolific, an academic crowdsourcing platform for recruiting participants for online studies, and forwarded to a survey hosted on Qualtrics, an online survey management platform. Only participants over the age of 18 and fluent in English were eligible. Participants were paid £2 for their participation in the study. Participants were asked to provide informed consent and told that their payment would be conditional on passing an attention check. The research was approved by the University of Leeds, School of Psychology Research Ethics Committee (approval date: 03/06/2019, reference number: PSC-703).

**Design.** Pilot Study 1 employed a within-subject mixed design and consisted of three parts. The first part implemented a 2x3 factorial design. Participants read vignettes consisting of paired food product descriptions and indicated whether they would expect noticeable differences between the two products contrasted in each vignette. Vignettes manipulated the factors Trace (two levels: Trace; No Trace) and Moral Domain (three levels: Environment; Human Welfare; Animal Welfare). The second part of the survey qualitatively explored participants' responses to the vignettes. The third part collected a range of demographic and questionnaire variables.



**Materials and Procedure.** In the first part of the survey, participants were presented with a series of vignettes. Each vignette contrasted two alternative means of production of the same food product that differed in their respective ethical status. Vignettes manipulated the factors Trace and Moral Domain. The factor Trace had two levels: Trace and No Trace. The Trace level featured vignettes that were designed such that it was predicted that participants would expect noticeable differences between the two products (e.g., organic production vs. conventional production). The No Trace level featured vignettes that were designed such that it was predicted that participants would not expect any noticeable differences between the two products (e.g., high vs. low wages for workers). The factor Moral Domain categorised the means of production described in the vignettes as being related to ethical issues in the domains Environment (e.g., high greenhouse gas emissions), Human Welfare (e.g., low wages), or Animal Welfare (e.g., free range cattle). The range of foods featured across all vignettes was broad, covering whole, highly processed, healthy, unhealthy, sweet, and savoury foods, as well as drinks. The following is an example vignette from the Animal Welfare/No Trace condition:

Tuna A is caught using conventional nets, which can trap and kill dolphins along with the tuna. The tuna is then processed and packaged using conventional industry procedures.

Tuna B is caught using dolphin-friendly nets, which are designed in such a way that when a dolphin gets trapped in the net, it can usually escape the net by itself. The tuna is then processed and packaged using conventional industry procedures.

In contrast, the following is an example vignette from the Environment/Trace

condition:

Apple A is grown locally in the UK using conventional agricultural methods that include the use of synthetic fertilisers, herbicides and pesticides for disease and pest control.

Apple B is grown locally in the UK using organic agricultural methods designed to minimise environmental impact. No synthetic fertilisers, herbicides or pesticides are used throughout the growing process; instead, pests and diseases are controlled using only natural methods.

There were three vignettes for each condition (i.e. the six combinations of the factors Trace and Moral Domain), thus totalling 18 vignettes. The full text of each vignette is provided in Appendix A.1.

Each participant was shown one random vignette from each condition, thus totalling six vignettes per participant. The presentation order of the six conditions as well as of the food production methods contrasted in each vignette was fully randomised across participants to prevent order effects. After reading each vignette, participants were asked to answer “yes” or “no” to the following question: “Assuming all else being equal, would you expect there to be a noticeable difference between the two products when consuming them?” The question wording deliberately avoided evaluative language, asking only about “noticeable differences” rather than relative deliciousness, to encourage participants to think about what they believe to be objectively the case rather than what they would prefer, and to avoid introducing social desirability bias (Puska et al., 2018).

After responding to the vignettes, participants moved on to the second part of

the survey. The aim of the second part of the survey was to investigate in more detail how participants thought about traces, by asking them to elaborate on those vignettes where they had previously indicated that they would expect noticeable differences. Specifically, participants were asked the following: “In what respect would you expect the two products to noticeably differ when consuming them? Please tick all that you think apply: Appearance; Flavour; Texture; Other (please specify).” Participants were also asked to qualitatively explain their responses: “Please explain why you would expect the two products to be noticeably different in these respects when consuming them.”

In the third part of the survey, participants were asked to provide basic demographic information about themselves (gender, age, education level, household income bracket, dietary preference). Participants were also asked to respond to two further variables to be able to control for the potential confounding effects of these variables, as well as to an attention check:

***Ethical Self-Identity Scale.*** As discussed in the Results and Discussion of the systematic review reported in Chapter Two, some previous research has found the ethical concern of participants to moderate participant perceptions of ethical food labelling (e.g., Laureati et al., 2013). Participants in the current study were thus asked to respond to the Ethical Self-Identity scale (Michaelidou & Hassan, 2008), which Michaelidou and Hassan (2008) have found to be reliable (Cronbach’s  $\alpha = .87$ ) and to predict consumer attitudes in relation to ethical food labelling. The Ethical Self-Identity scale consists of two items: “I think of myself as someone who is concerned about ethical issues”; “I think of myself as an ethical consumer”. Participant responses were measured on 7-point Likert scales with anchors *strongly agree* and *strongly disagree*.

***Health Considerations.*** Previous research has suggested that ethical labelling

can affect the perceived healthiness and safety of foods (Hughner et al., 2007; Bernués et al., 2003). Following Schuldt and Hannahan (2013), the current study thus included one item to measure participants' general concern in relation to healthy eating.

Participants were asked to indicate the importance of health considerations in their food consumption decisions on a 5-point Likert scale with anchors *extremely important* and *not at all important*.

**Attention Check.** The final question of the survey was an attention check. The attention check was the last item of the survey to prevent it from exerting any kind of bias on any previous responses. Before they had moved onto the third part of the survey, participants had been told to select "orange" in reply to the last survey question, no matter what the question was. Participants were told when they had reached the last survey question (that is, the attention check), which was "What colour is the sky?". Answer options were "orange" and "blue". When they had completed the survey, participants were thanked and the aim of the study was revealed.

## **Results**

Participant characteristics are detailed in Table 3. Scores on the two items of the Ethical Self-Identity scale were added together to form a total Ethical Self-Identity score with a possible score range from 2 (lowest Ethical Self-Identity) to 14 (highest Ethical Self-Identity). The sample mean Ethical Self-Identity score was 10.7 ( $SD = 1.8$ , Cronbach's  $\alpha = 0.78$ ).

**Table 3***Participant Characteristics (Pilot Study 1)*

Characteristic	<i>n</i> ( <i>N</i> = 100)
Gender	
Female	48
Male	52
Age group	
18-29	51
30-39	23
40-49	17
50-59	5
60 and older	4
Education	
GCSE/some high school or equivalent	14
Vocational education	8
A-levels/completed high school or equivalent	32
Bachelor's degree	35
Master's degree or doctorate	11
Household income bracket	
Less than £10,000	9
£10,000 to £19,999	20
£20,000 to £34,999	26
£35,000 to £49,999	11
£50,000 to £74,999	18
£75,000 to £100,000	7
More than £100,000	3
Would rather not say	6
Dietary preference	
Omnivore	80
Flexitarian	8
Pollotarian	0
Pescatarian	4
(Ovo-lacto/Ovo-/Lacto-) Vegetarian	6
Vegan	2
Importance of health considerations in food consumption choices	
Extremely important	14
Very important	49
Moderately important	34
Slightly important	3
Not at all important	0
Attention check	
Pass	55
Fail	45

The attention check proved too difficult, with 45% of participants failing. However, it was decided not to exclude participants on this basis. Given that participants were told at the beginning of the survey that their payment would be conditional on passing the attention check, it was deemed plausible that this had a positive effect on attention levels throughout the survey. Furthermore, given its position at the end of the survey, it is unlikely that the attention check biased previous responses in any way, and qualitative responses in the second part of the survey seemed generally thoughtful. For these reasons, it was judged that in this case the high fail rate of the attention check was not necessarily indicative of poor data quality.

Descriptive and inferential statistical analyses were carried out using Microsoft Excel (version 16.75), IBM SPSS Statistics 25, as well as R (version 4.2.2; R Core Team, 2022), using RStudio (version 2023.06.1+524) and the packages `tidyverse` (Wickham et al., 2019), `reshape2` (Wickham, 2007), `psych` (Revelle, 2022), `ltm` (Rizopoulos, 2006), `lme4` (Bates et al., 2015), and `lmerTest` (Kuznetsova et al., 2017).

For each experimental condition, the overall percentage of participants who expected noticeable differences was computed by combining the responses to all three vignettes of the same condition. Figure 2 shows the percentage of participants who expected noticeable differences between food products in each experimental condition. Averaged across all conditions, 43.3% of responses expressed an expectation of noticeable differences. Of all responses in No Trace conditions, 26.0% expressed an expectation of noticeable differences between food products, compared with 60.7% of all responses in Trace conditions that expected noticeable differences. Of all responses in Environment conditions, 50.0% expected noticeable differences, compared to 48.0% of all responses in Human Welfare conditions and 32.0% of all responses in Animal Welfare conditions that expected noticeable differences.

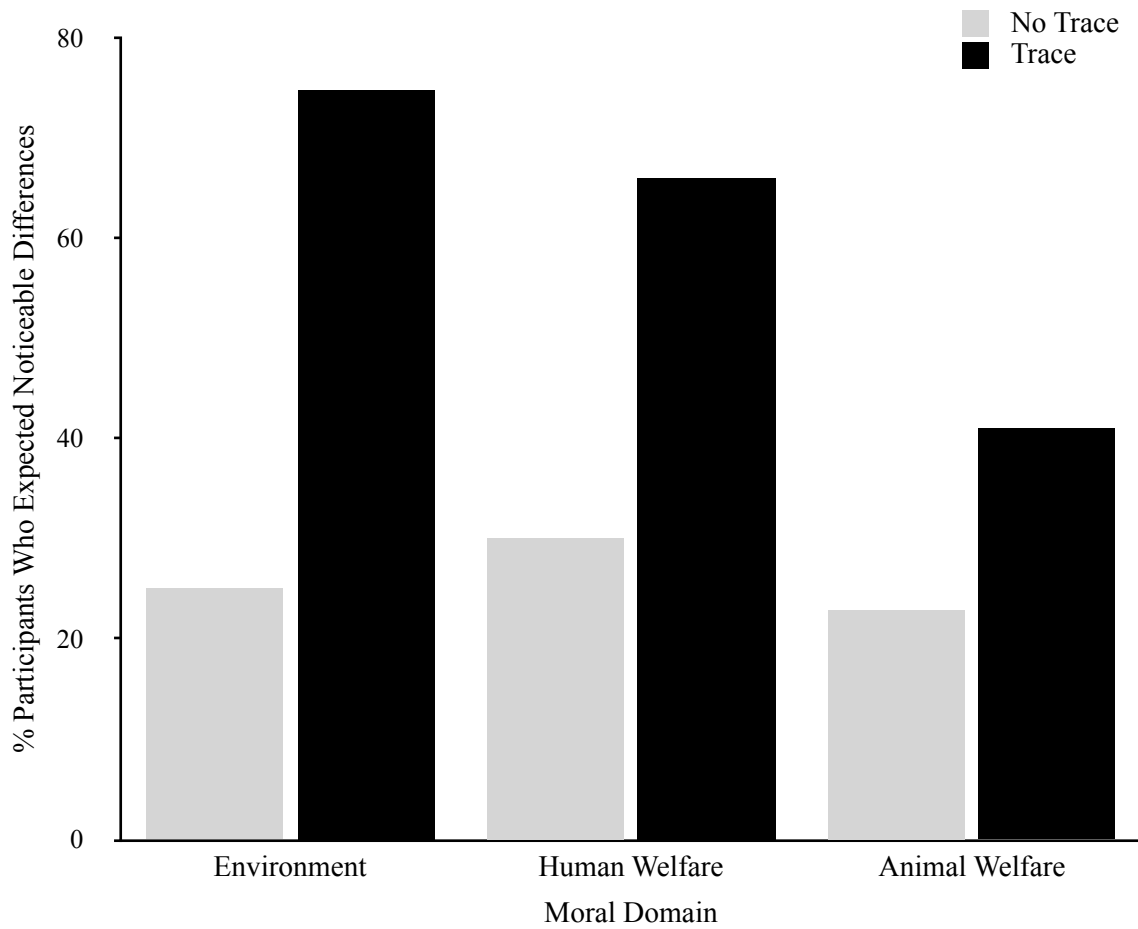
Figure 2 suggests that Trace had an effect at all three levels of Moral Domain. The effect was strongest in the moral domain Environment, with 25.0% of participants expecting noticeable differences between food products in the Environment/No Trace condition compared to 75.0% in the Environment/Trace condition. The effect was somewhat weaker in the Human Welfare domain, where 30.0% of participants expected noticeable differences between food products in the condition Human Welfare/No Trace, compared to 66.0% in the condition Human Welfare/Trace. The effect of Trace was weakest in the Animal Welfare domain, where 23.0% of participants expected noticeable differences between food products in the Animal Welfare/No Trace condition but only 41.0% expected noticeable differences in the Animal Welfare/Trace condition. This suggests that participants were overall less likely to expect noticeable differences in the Animal Welfare/Trace condition compared to the respective Trace conditions in the moral domains Human Welfare and Environment.

To explore further the apparent interaction between the factors Trace and Moral Domain, responses were analysed for each individual vignette (Table 4). In terms of the vignettes constituting the Animal Welfare/Trace condition, 59.1% of responses expressed an expectation of noticeable differences in milk resulting from different living conditions of a dairy cow (higher vs. lower welfare), whereas only 29.2% of responses expressed an expectation that alternative ways to kill a pig would result in a noticeable difference in bacon (stunned and shot dead immediately vs. cut throat and left to bleed to death with no prior stunning), and merely 25.0% of responses expressed an expectation of a noticeable difference in lobster due to alternative ways to kill the lobster (stunned before being placed in hot water vs. placed in hot water with no prior stunning).

**Figure 2**

*Percentage of Participants Who Expected Noticeable Differences Between Food*

*Products in Each Experimental Condition*





**Table 4**

*% Responses to Individual Vignettes That Expressed an Expectation of Noticeable Differences Between Food Products*

Experimental condition	Vignette	%
Environment/No Trace	Tomato	16.7
	Tea	30.8
	Cookie	28.9
Environment/Trace	Apple	81.3
	Coffee beans	69.7
	Crisps	74.3
Human Welfare/No Trace	Banana	31.4
	Raisins	20.6
	Wine	38.7
Human Welfare/Trace	Grapes	69.4
	Coffee	70.4
	Chocolate	59.5
Animal Welfare/No Trace	Egg	13.8
	Tuna	23.1
	Chicken nuggets	31.3
Animal Welfare/Trace	Milk	59.1
	Lobster	25.0
	Bacon	29.2

Mixed-effects logistic regression analysis was conducted to investigate in more detail the statistical significance of various variables and their interactions in predicting participant expectations of noticeable differences between food products. Table 5 details how predictors were coded in R for the purposes of inferential statistical analyses. As regards household income, a specific income value was defined to represent each household income bracket (see Table 6). These representative household income values were then scaled by dividing each value by the root mean square of the set of all household income responses.

**Table 5***Coding of Predictors in R*

Predictor	Class	Comments
Gender	Factor	2 levels: Female (= reference level), Male
Age	Numeric	
Education	Factor	5 levels: GCSE (= reference level), Vocational, A-Levels, Bachelor, Master
Income	Numeric	Scaled representative household income values
Diet	Factor	5 levels: Omnivore (= reference level), Flexitarian, Pescatarian, Vegetarian, Vegan
Omnivore	Factor	2 levels: Omnivore (= reference level), Not Omnivore
Health considerations	Numeric	
Ethical Self-Identity	Numeric	Total Ethical Self-Identity score
Attention check	Factor	2 levels: Pass (= reference level), Fail
Trace	Factor	2 levels: Trace, No Trace (= reference level)
Moral Domain	Factor	3 levels: Environment, Human Welfare, Animal Welfare (= reference level)

**Table 6***Representative Household Income Values*

Household income bracket	Representative household income value
Less than £10,000	£5,000
£10,000 to £19,999	£15,000
£20,000 to £34,999	£27,500
£35,000 to £49,999	£42,500
£50,000 to £74,999	£62,500
£75,000 to £100,000	£87,500
More than £100,000	£150,000

*Note.* “Would rather not say” responses were classed as NAs. Participants with missing income responses were excluded from any modelling where income was tested as a predictor.

Given the exploratory nature of the current pilot work, the mixed-effects logistic regression modelling was carried out in such a way that all predictors and interactions between predictors were tested for statistical significance. Non-experimental predictors (that is, all predictors except Trace and Moral Domain) and interactions that had not been predicted to systematically affect the results were entered into the model first to be able to control for any unexpected effects of such predictors and interactions. For the purposes of this exploratory modelling process, a stricter statistical significance threshold of  $\alpha' = .01$  (rather than the typical  $\alpha = .05$ ) was defined to reduce the risk of committing a type I error associated with such a process. This meant that the addition of predictors and interactions to the model had to improve the model at the stricter statistical significance threshold defined by  $\alpha'$  for the predictors or interactions to be kept in the model. If any interactions were revealed to be statistically significant, the associated main effects of the predictors constituting the interaction would be included

in the model as well.

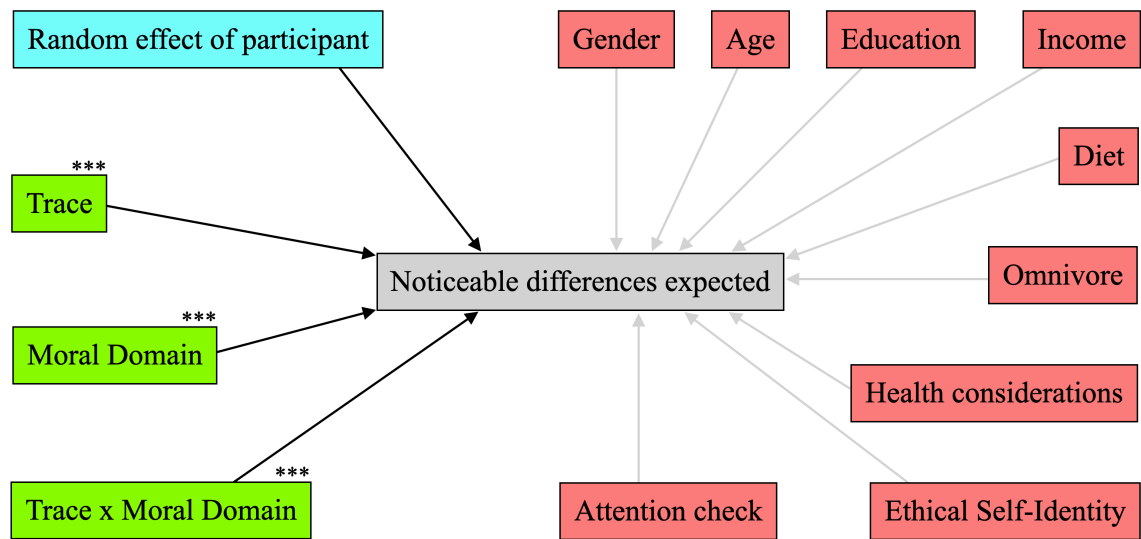
In practice, a base mixed-effects logistic regression model containing only the random effect of participant was created using the `glmer` function of the `lme4` package. To control for potential main effects of any predictors other than the experimental factors Trace and Moral Domain, all predictors except Trace and Moral Domain were then added to the base model in turn. For each predictor the resultant model was compared to the base model. None of these predictors were statistically significant as defined by  $\alpha'$  in the preceding paragraph, thus none of these predictors were retained in the model. Because participants who had preferred not to disclose their household income had to be excluded from any statistical analyses that involved the income predictor, and given that income had not been found to have a significant main effect in its own right, it was decided not to include the income predictor in any subsequent analyses of potentially significant interactions so as to be able to analyse the complete set of participant responses. None of the thus remaining interactions involving any two predictors other than Trace and Moral Domain significantly improved the base model, so none of these interactions were retained in the model.

The factor Moral Domain was subsequently added to the model and found to significantly improve the model compared to the base model. As before, interactions involving Moral Domain and all other predictors other than Trace were tested for significance; none of these interactions were found to be significant. The factor Trace was added next and found to significantly improve the model. None of the interactions between Trace and any other predictor other than Moral Domain were found to be significant. The interaction between the experimental factors Trace and Moral Domain was subsequently entered into the model and found to significantly improve the model. The resultant model was the model that best fit the data; it is summarised in Table 7.

Figure 3 illustrates the statistical significance (at  $\alpha' = .01$ ) of the individual main and interaction effects when they were entered into the mixed-effects logistic regression model as respective sole fixed-effects terms.

### Figure 3

*Overview of Statistical Significance of Individual Predictors and Interactions (Pilot Study 1)*



*Note.* The figure illustrates the statistical significance (at  $\alpha' = .01$ ) of individual predictors and interactions when they were entered as respective sole fixed-effects terms into a mixed-effects logistic regression model predicting how likely participants were to expect noticeable differences between food products.

\*\*\*  $p < .001$ .

**Table 7**

*Results of Mixed-Effects Logistic Regression Analysis With Reference Levels Animal Welfare and No Trace*

Random effects	Variance	Std. dev.			
Participant (Intercept)	0.787	0.887			
Fixed effects	Estimate	Std. error	<i>z</i>	<i>p</i>	
(Intercept)	-1.406	0.274	-5.134	<.001	***
Moral Domain: Environment	0.125	0.352	0.354	.723	
Moral Domain: Human Welfare	0.413	0.344	1.200	.230	
Trace: Trace	0.978	0.337	2.899	.004	**
Moral Domain: Environment x Trace: Trace	1.589	0.489	3.252	.001	**
Moral Domain: Human Welfare x Trace: Trace	0.799	0.469	1.702	.089	

*Note.* \*\*\*  $p < .001$ ; \*\*  $p < .01$ .  $N = 100$ .

Fixed effects are reported in the format Predictor: Level; the specified levels are relative to the reference levels of the respective predictors. A positive coefficient estimate indicates that participants were more likely to expect noticeable differences at the specified levels compared to the reference levels of the respective predictors. A negative estimate indicates the opposite effect.

Figure 2 suggested that the factor Trace had an effect on all levels of Moral Domain, but that this effect was weakest in the Animal Welfare domain. The model that best fit the data as reported in Table 7 confirmed the statistical significance of the effect of Trace even at the Animal Welfare domain ( $p = .004$ ). Coefficient estimates of the respective effects of the factor Trace at the other levels of Moral Domain could be calculated from the coefficient estimates reported in Table 7. Specifically, the coefficient estimate of the effect of Trace at the Environment level could be obtained by

adding the coefficient estimate of the effect of Trace at the Animal Welfare level to the coefficient estimate of the Environment x Trace interaction term, such that  $0.978 + 1.589 = 2.567$ . Analogously, the coefficient estimate of the effect of Trace at the Human Welfare level could be obtained by adding the coefficient estimate of the effect of Trace at the Animal Welfare level to the coefficient estimate of the Human Welfare x Trace interaction term, such that  $0.978 + 0.799 = 1.777$ .

It was deemed not necessary to separately calculate statistical significance levels for these effects given that the relatively weaker effect of the factor Trace at the Animal Welfare domain (as indicated by the smaller coefficient estimate of 0.978 compared to the coefficient estimates for the effect of Trace at the other levels of Moral Domain as calculated in the preceding paragraph) had already been determined to be statistically significant, and given that the binary nature of participant responses meant that there could not have been any statistically unaccounted for peculiarities in the data. The latter point is further evident in Figure 2, because the binary nature of participant responses entails that Figure 2 is an exact representation of participant responses as opposed to being merely a representation of mean participant responses. It was thus concluded that the factor Trace had an effect at all levels of Moral Domain; however, the statistically significant interaction of Trace x Moral Domain meant that the strength of the effect of Trace was not consistent across the three levels of Moral Domain. In particular, the effect of Trace was weaker, though still statistically significant, in the Animal Welfare domain.

**Analysis of Qualitative Responses.** For any vignette where participants had indicated that they would expect noticeable differences between the two food products contrasted in the vignette, participants had also been asked to qualitatively explain *why* they would expect noticeable differences. Qualitative responses collected in response to

this question were analysed by conducting a basic content analysis (Maier, 2017; Holman, 2017). Three broad categories were defined (discussed below) to group together responses based on the way that each response engaged with the respective vignette. Appendix A.2 contains a selection of qualitative responses given by participants.

The first category grouped together responses that were seemingly lacking in genuine engagement with the question posed to participants. Such statements tended to be merely *descriptive* of or *tangential* to the respective vignette. This included responses that merely stated *that* there was a difference between the two products, or restated what the difference in production methods was between the two products, rather than explaining *why* the participant thought that there would be noticeable differences between the two products. Such responses appeared at a moderate incidence level across the board. An example of a merely descriptive answer, in response to the Environment/No Trace vignette that contrasted cookies produced in a polluting factory with cookies produced in a non-polluting factory, was:

Cookie A the environment is polluted where as [sic] Cookie B comes from a factory where energy and pollution is minimised.

An example of a tangential answer, in response to the Animal Welfare/No Trace vignette that contrasted chicken nuggets produced by a company lobbying for a loosening of animal welfare standards with chicken nuggets produced by a company that maintains neutrality with regards to potential changes to animal welfare standards, was:

I eat only eat [sic] chicken raised in a [sic] open field, if I don't know how the chicken was raised I don't buy the product.

Some responses seemingly considered nutritional or other health-related benefits



to count as noticeable differences; such responses were classed as tangential responses as well. An example of such a response, in relation to the Animal Welfare/Trace vignette that contrasted milk obtained from a cow in average living conditions with milk obtained from a cow in above average living conditions, was:

If the cow is outside more it will eat more grass. This will result in more nutritious milk.

The second category grouped together responses that demonstrated some engagement with the question but where the participant's expectation of noticeable differences seemed to be grounded in the import of extraneous information on the part of the participant, as opposed to the participant focusing exclusively on the content of the vignette as they had been instructed to do. Such responses appeared most frequently, with a higher incidence in No Trace conditions compared to Trace conditions. In some of these cases the kind of information the participant appealed to seemed to be based on their previous experiences; an example of this kind of response, in relation to the Environment/No Trace vignette that contrasted the amount of plastic waste produced by tea sold in teabags with that of tea sold as loose leaf tea, was:

Loose leaf tea always tastes better from past experience.

However, in the majority of cases in this category, participants speculatively inferred potential effects of various additional aspects of food production that were not mentioned in the vignettes themselves. For example, in response to the Human Welfare/No Trace vignette that contrasted bananas grown on a farm where workers are paid average wages with bananas grown on a farm where workers are paid below average wages, one participant wrote:

The conditions of Banana B aren't as great as the conditions of Banana A — maybe pollution waste could effect [sic] the appearance and flavour.

Similarly, in response to the Animal Welfare/No Trace vignette that contrasted regular tuna with dolphin-friendly tuna, one participant stated that:

They would potentially be in eco friendly packaging etc.

In the case of the Environment/No Trace vignette that contrasted tomatoes grown in a greenhouse powered by renewable energy with tomatoes grown in a greenhouse powered by non-renewable energy, some participants appeared to assume that the power would be generated on-site, with one participant writing:

I would expect that the substances contained in gas, coal, etc would be in some way absorbed by the tomatoes and thus affecting their taste and appearance, whereas Tomato B would probably be more natural looking and taste better.

All the Human Welfare vignettes as well as one Animal Welfare/No Trace vignette described the working conditions of labourers and/or the social actions and attitudes of employers or companies. Among the responses to these vignettes, there was a high incidence of speculative inferences from working conditions or a company's social actions to the level of care taken in the food production process. An example of this, in relation to the Human Welfare/No Trace vignette that contrasted wine produced by an employer committed to reduce working standards with wine produced by an employer committed to increase working standards, was:

Company caring for its workers equates to workers caring as to how they do their job eg pick the best quality for consumers.

Another example, in relation to the aforementioned Animal Welfare/No Trace vignette about chicken nuggets, was:

If the second company wants to lower the standards of animal welfare legislation to increase revenue then it's possible that they may cut corners in the production of their product in order to save costs which could lead to them

making a lower quality product compared to the first company.

The third category grouped together responses that gave *reasons* that attempted to relate the difference in production methods as described in the vignettes to noticeable differences between the products. Such responses were relatively common, with incidence levels being higher in Trace conditions compared to No Trace conditions. An example of such a response in relation to the previously mentioned Environment/No Trace vignette about tea was:

I think keeping the leaves loose will give them a different flavour with air to breathe.

Another example, in response to the Human Welfare/Trace vignette that contrasted chocolate made from cocoa produced by a farmer with a below average understanding of cocoa farming practices with chocolate made from cocoa produced by a farmer with above average understanding of cocoa farming practices, was:

If the farmer has a better understanding of cocoa bean production they would be able to identify ways to improve their crops which could possibly lead to a better flavour.

In the Animal Welfare domain, several participants suggested that animal stress and overall welfare might affect the quality of animal products. An example of this kind of response, in relation to the Animal Welfare/Trace vignette that contrasted lobster boiled with and without prior stunning, was:

I have read that animals that have been killed in a painful way release toxins prior to dying, which affects the quality of their meat. Based on that knowledge I believe that Lobster A would probably have a harder to chew meat and probably taste slightly different than Lobster B.

One participant wrote a comment in a similar spirit in response to the previously

mentioned Animal Welfare/Trace vignette about milk, whilst acknowledging that the expected noticeable difference might in fact be the result of an ethical halo effect mediated by the experience of positive affect:

I think well being [sic] can improve the products, but perhaps this in [sic] the mind of the consumer who feels more satisfied with the animal welfare conditions.

A common theme among reasoned as well as among speculative responses in the Environment domain was an equivocation of naturalness with (taste) quality, sometimes coupled with qualification that the more natural product might look visually less appealing. For example, in response to the Environment/Trace vignette that contrasted a conventional apple with an organic apple, one participant wrote:

Apple A has been prepared in a more natural way and so it is likely that it will have a better taste and texture as nothing was used on the apples which could have an effect on its natural taste;  
whereas another participant wrote:

The use of chemicals will help with uniformity of shape and perhaps affect the taste. The organic apples will be less uniform in shape.

### ***Discussion***

In Pilot Study 1, participants were presented with vignettes that described a range of food production methods from the moral domains Environment, Human Welfare, and Animal Welfare. Half the vignettes (Trace condition) were designed to invoke expectations of noticeable differences between the two food products compared within a given vignette, whereas the other half (No Trace condition) was designed not to invoke any expectations of noticeable differences. The factor Trace had an effect in the predicted direction across all levels of Moral Domain, with participants being

significantly more likely to expect noticeable differences in the respective Trace conditions compared to the respective No Trace conditions of each level of Moral Domain. However, the findings of this study also implied that people's expectations of traces vary across different moral domains. Even though the factor Moral Domain had not been predicted to significantly affect participants' responses, there was a significant interaction between Moral Domain and Trace such that the effect of Trace was weaker (though still statistically significant) in the Animal Welfare domain.

It is possible that the comparatively low levels of expectations of traces in the Animal Welfare/Trace condition was merely a consequence of the content of the particular vignettes that were used in the study; alternatively, it could be the manifestation of underlying attitudes regarding the eating of animal products. One important limitation of the present study was that qualitative responses were only collected where participants had indicated that they *did* expect noticeable differences. This means that, while the results of this study may give rise to a number of hypotheses regarding people's attitudes towards various aspects of food production in the Animal Welfare domain as discussed below, any attempts to explain participants' reasoning for indicating that they didn't expect noticeable differences in the Animal Welfare/Trace condition remain speculative. A potential replication of the current study, and future studies exploring the notion of a trace more generally, should address this issue by asking participants to explain their reasoning regardless of whether they had responded that they would expect noticeable differences or not.

The overall high incidence of merely descriptive or speculative responses in the qualitative part of the survey suggest misunderstandings of, or at least a lack of engagement with, the content of the vignettes. This could be the result of a lack of general background knowledge required to make sense of the content of the vignettes,

or might be due to participants not paying attention properly. It is possible that the current kind of study design, which relies on people closely reading and engaging with vignettes, is less suited to being published on a platform where people get paid to do surveys online. A potential replication of this study should contain a revised attention check and exclude participants who fail the attention check. Concerns regarding participant attention levels might further be less pronounced in a research context where the vignettes from the current pilot study are adapted for use in a lab setting, as was the case in the Lab Study reported later in the current chapter, as it is plausible that the lab setting will motivate participants to pay closer attention to the information presented to them.

The relatively high incidence of responses characterised by a speculative import of additional information not specified in the vignettes themselves further suggests that many participants seemed to struggle to take to heart the instruction to “assume all else being equal”. This could be seen as evidence for past associative learning processes whereby participants have learned, as a result of previous experiences or due to socio-cultural factors, to associate one piece of information, such as “naturalness”, with an alleged product feature, such as higher taste quality (Parker & Penfield, 2005). To help ensure focus on only the content that is explicitly specified in the vignettes, future studies should adapt the vignettes in ways that clarify some of the more common misunderstandings of particular aspects of particular vignettes. For example, the Environment/No Trace vignette about a tomato should be modified to state explicitly that the (non-)renewable energy used to power the greenhouse is not being generated on-site. Similarly, where participants gave reasoned responses for why they expected noticeable differences in No Trace conditions, this can give useful indications as to how to modify certain vignettes to prevent similar misunderstandings in prospective

participants.

The fact that reasoned responses had a relatively higher incidence level in Trace conditions compared to No Trace conditions is encouraging, as this suggests that the Trace vignettes tended to be generally successful at anticipating what kinds of food production methods people expect to result in noticeable differences when they are engaging only with the content of the vignettes presented to them.

The results of the current study raise the question of why previous studies found certain ethical information to affect taste evaluations despite most participants in the current study not associating related ethical information with the occurrence of a trace. This is particularly the case in the Human Welfare/No Trace condition, where 70.0% of participants did not expect noticeable differences although previous studies found that people's taste evaluations were affected by Fairtrade labelling (e.g. Enax et al., 2015; Lotz et al., 2013; Tang et al., 2016). The findings of the current study thus echo the findings of Lotz et al. (2013) and Tang et al. (2016) in particular: Lotz et al. (2013) found that people expressed greater liking of the taste of chocolate when the chocolate was labelled Fairtrade, even though 77.3% of their participants had previously indicated they didn't believe that the Fairtrade status of food makes a difference to the taste of food. Importantly, Lotz et al. observed an effect of the Fairtrade labelling on taste ratings even in those participants who had previously indicated that they didn't believe that Fairtrade labelling made a difference to the taste of food. Similarly, Tang et al. (2016) observed a positive effect of Fairtrade labelling even in people who believed that Fairtrade products taste the same as, or worse than, conventional products. In conjunction with the findings of the current study, these results suggest that the effect of ethical information on taste ratings in the Human Welfare domain might not be predominantly driven by expectations of traces.

The Trace manipulation was particularly effective in the Environment domain. The results in the Environment/Trace condition are consistent with previous empirical work where organic labelling was found to affect taste evaluations (e.g., Hemmerling et al., 2013). However, it is less clear to what extent people's perceptions regarding traces in Environment/No Trace scenarios correspond to their actual experiences. Out of the studies included in the systematic review reported in Chapter Two, only a small number of studies (Bratanova et al., 2015, study 2; Silva et al., 2017; Simoes et al., 2015) employed Environment/No Trace-type information. These studies produced inconsistent results: Simoes et al. (2015) observed an effect of ethical information on taste ratings, but Silva et al. (2017) and Bratanova et al. (2015) did not find a significant effect. The results reported by Bratanova et al. (2015) are of limited evidential value in this context, however, as their study design mixed Trace with No Trace information in a way that doesn't allow for a separate assessment of any effects due to Trace and No Trace information, respectively. Future research should explore the effect of Environment/No Trace-type information on taste evaluation in more detail; the Lab Study that was conducted on the basis of the current pilot work and that is reported later in the current chapter constitutes a first step in this direction.

When evaluating the results in the Animal Welfare domain, it should be noted that not much empirical work has been carried out to date on the effect of animal welfare-related ethical information on taste evaluations of food. Still, previous work (Napolitano et al., 2007) has reported that Animal Welfare/Trace-type information can affect taste evaluations, which is in tension with the finding of the current study that 59.0% of participants did not expect noticeable differences in the Animal Welfare/Trace condition. No previous studies have explored the effect of Animal Welfare/No Trace-type information on taste evaluations. Future research should explore how people's



expectations regarding the occurrence of traces relate to their taste experiences in the Animal Welfare domain.

Future research should also explore in greater detail people's attitudes towards morally valenced aspects of the means of production of animal products. This might help to explain the unexpectedly low score for expected noticeable differences in the Animal Welfare/Trace condition (41.0%) compared to the respective Trace conditions in the Human Welfare (66.0%) and Environment (75.0%) domains. The differences between the responses to the individual vignettes comprising the Animal Welfare/Trace condition could give rise to a number of hypotheses. For example, the dairy cow vignette described an aspect of animal welfare that affects the animal for most of its life, whereas the other two vignettes (about a pig and a lobster, respectively) concerned an animal welfare-related aspect that only amounts to a very short time in the lives of the animals: their respective deaths. Perhaps people tend to assume that whatever happens in the circumstances of an animal's death does not affect the animal for a large enough proportion of its lifetime to noticeably affect product quality. Alternatively, perhaps participants — 80.0% of whom described themselves as omnivores — sought to align their beliefs with their eating behaviours as a result of experiencing cognitive dissonance (Festinger, 1957) in response to the vignettes describing what might be perceived as violent or painful animal deaths. In any case, it might be advisable for future research on perceptions regarding traces to avoid such vignettes as cues to induce expectations of noticeable differences in participants.

## **Pilot Study 2**

Pilot Study 2 employed the same set of vignettes that had been developed for Pilot Study 1. In Pilot Study 1, it had simply been assumed that the means of production contrasted in each vignette were perceived as different in their respective moral status.

The aim of Pilot Study 2 was thus to confirm that the production methods contrasted in the vignettes really were perceived as differing in their ethical status by measuring the perceived moral difference between food production methods contrasted in the vignettes.

### ***Method***

**Participants and Ethics.** Fifty participants took part in the study (30 female; mean age = 31.5,  $SD = 11.28$ ). As with Pilot Study 1, participants were recruited via Prolific and forwarded to a survey hosted on Qualtrics, an online survey management platform. Only participants over the age of 18 and fluent in English were eligible. Participants were paid £1.10 for their participation in the study. Participants were asked to provide informed consent and told that their payment would be conditional on passing an attention check. The research was approved by the University of Leeds, School of Psychology Research Ethics Committee (approval date: 05/09/2019, reference number: PSC-751).

**Design.** Pilot Study 2 employed a within-subject design and consisted of two parts. The first part implemented a 2x3 factorial design. Participants were shown the same vignettes that were used in Pilot Study 1: Each vignette contrasted two alternative production methods of the same food product, and vignettes manipulated the factors Trace (two levels: Trace; No Trace) and Moral Domain (three levels: Environment; Human Welfare; Animal Welfare). For each vignette, participants were asked to indicate how morally different they thought the two food production methods contrasted in the vignette were, as well as how moral or immoral they found the two individual production methods in and of themselves. The second part of the survey collected a range of demographic and questionnaire variables.

**Materials and Procedure.** In the first part of the survey, participants were

presented with vignettes. The vignettes were the same as had been used in Pilot Study 1; Appendix A.1 contains all the vignettes used in both pilot studies. Each vignette contrasted two alternative means of production of the same food product. Participants were shown one vignette at a time. For each vignette, participants were asked three questions. The first question asked participants to indicate how morally different they thought the two food production methods contrasted in the vignette were. The question put to participants was as follows: “How morally different do you, personally, find these production methods?” Participants selected their response to the first question on a 7-point Likert scale with anchors *not at all different* and *extremely different*. In order to make the scale appear linear, scale items between the anchors were unlabelled to prevent ambiguously worded labels from introducing confusion regarding the differentiation of individual scale items. The second and third questions asked participants to morally evaluate the *individual* food production methods featured in the vignette. To this end, the two individual food production methods featured in the vignette were presented to participants again, but this time the individual production methods were displayed separately as opposed to side-by-side. About each individual production method, participants were asked “How moral or immoral do you, personally, find this production method?” Responses to the second and third questions were recorded on a 7-point Likert scale with anchors *extremely moral* and *extremely immoral*. Scale items between the anchors were labelled as there are standard labels available (i.e., *extremely moral*, *moderately moral*, *slightly moral*, *neither moral nor immoral*, *slightly immoral*, etc.) for a scale that records attitudes ranging between two extremes.

Each participant was shown one random vignette from each condition, thus totalling six vignettes per participant. For each vignette, participants were always asked to evaluate the moral difference between production methods first, before being asked

to evaluate the two individual production methods featured in the vignette. The presentation order of the six conditions as well as of the food production methods within each vignette was fully randomised to prevent order effects.

After they had responded to the vignettes, participants were presented with an attention check. In light of the high fail rate of the attention check that had been used in Pilot Study 1, the attention check was redesigned for Pilot Study 2. The redesigned attention check consisted of two vignettes. Superficially, the attention check vignettes followed the same structure as the experimental vignettes: Both of the attention check vignettes contrasted two alternative production methods of the same food product such that the two production methods were predicted to be perceived as differing in their respective moral status. As with the experimental vignettes, the question put to participants for each attention check vignette was “How morally different do you, personally, find these production methods?” Embedded within the descriptions of the two food production methods featured in the attention check vignettes, however, were instructions for participants. Specifically, one of the attention check vignettes included the instruction to withhold a response to the question, whereas the other attention check vignette included the instruction to select *not at all different* as the response to the question. Participants who failed to respond as they had been instructed to either or both of these attention check vignettes were considered to have failed the attention check and were consequently excluded from the study.

The second part of the survey was identical to the third part of the survey that had been used in Pilot Study 1. Upon completion of the survey, participants were thanked and the aim of the study was revealed.

## **Results**

All data analysis was carried out in R (version 4.2.2; R Core Team, 2022), using

RStudio (version 2023.06.1+524), and the packages `tidyverse` (Wickham et al., 2019), `reshape2` (Wickham, 2007), `psych` (Revelle, 2022), `ltm` (Rizopoulos, 2006), `lme4` (Bates et al., 2015), `lmerTest` (Kuznetsova et al., 2017), and `MASS` (Venables & Ripley, 2002).

Participant characteristics are detailed in Table 8. With the exception of the attention check variable, which did not exist as a variable in the current study as only participants who had passed the attention check were included in the current study, predictors were coded and prepared for statistical analysis in a manner identical to how this had been done in Pilot Study 1. The sample mean Ethical Self-Identity score was 11.0 ( $SD = 1.7$ , Cronbach's  $\alpha = 0.75$ ).

Participants had indicated the perceived moral difference between the food production methods contrasted in each vignette on a 7-point Likert scale with anchors *not at all different* (coded as 1) and *extremely different* (coded as 7). Across all vignettes, the mean perceived moral difference between the production methods contrasted in the vignettes was 5.49 ( $SD = 1.57$ ). The mean perceived moral difference between production methods across all responses in No Trace conditions was 5.55 ( $SD = 1.44$ ), compared with a mean of 5.43 ( $SD = 1.70$ ) across all responses in Trace conditions. Across all responses in Environment conditions, the mean perceived moral difference between production methods was 5.82 ( $SD = 1.35$ ), compared to a mean of 5.32 ( $SD = 1.55$ ) across all responses in Human Welfare conditions, and a mean of 5.33 ( $SD = 1.76$ ) across all responses in Animal Welfare conditions.

**Table 8***Participant Characteristics (Pilot Study 2)*

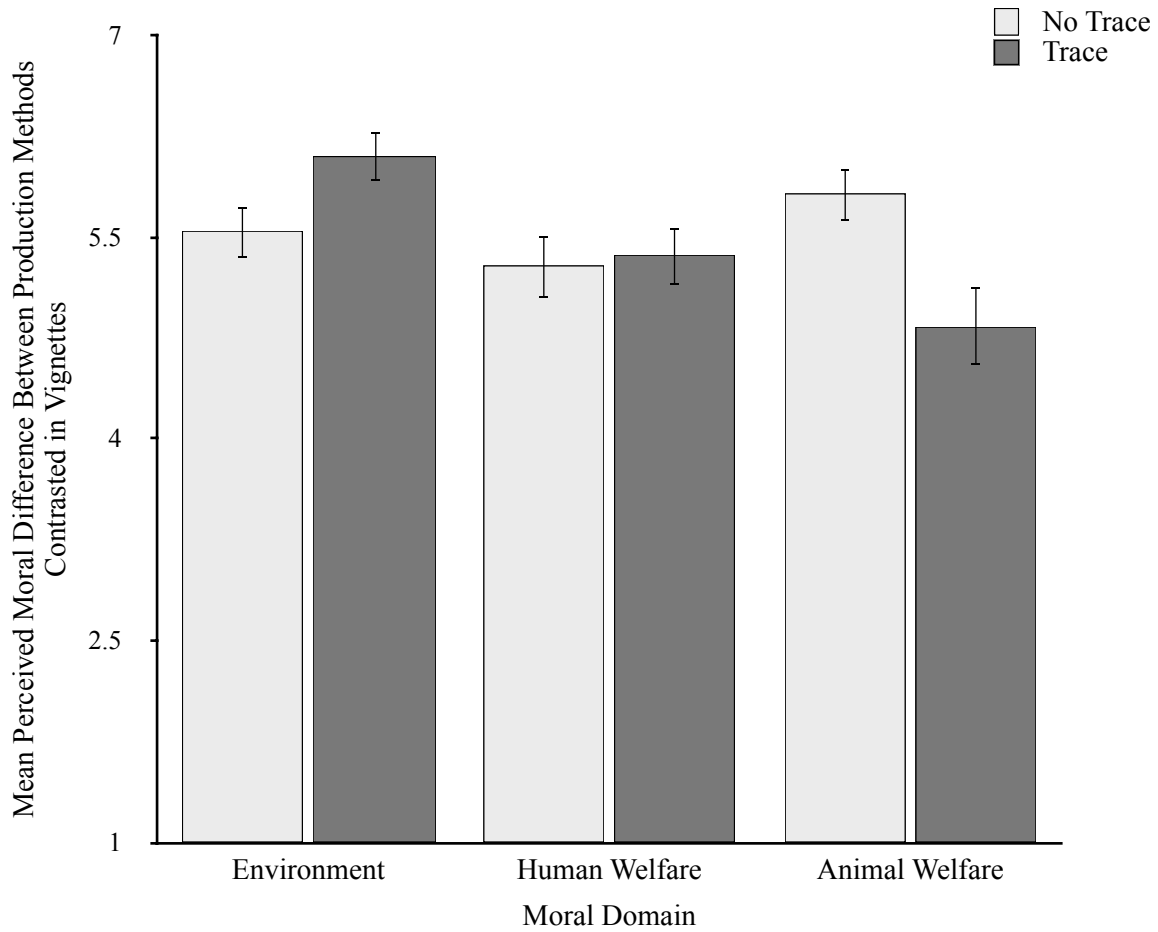
Characteristic	<i>n</i> (%) ( <i>N</i> = 50)
Gender	
Female	30 (60)
Male	20 (40)
Age group	
18-29	26 (52)
30-39	13 (26)
40-49	8 (16)
50-59	1 (2)
60 and older	2 (4)
Education	
GCSE/some high school or equivalent	0 (0)
Vocational education	4 (8)
A-levels/completed high school or equivalent	20 (40)
Bachelor's degree	13 (26)
Master's degree or doctorate	13 (26)
Household income bracket	
Less than £10,000	4 (8)
£10,000 to £19,999	11 (22)
£20,000 to £34,999	11 (22)
£35,000 to £49,999	10 (20)
£50,000 to £74,999	5 (10)
£75,000 to £100,000	6 (12)
More than £100,000	0 (0)
Would rather not say	3 (6)
Dietary preference	
Omnivore	30 (60)
Flexitarian	9 (18)
Pollotarian	2 (4)
Pescatarian	3 (6)
(Ovo-lacto/Ovo-/Lacto-) Vegetarian	2 (4)
Vegan	4 (8)
Importance of health considerations in food consumption choices	
Extremely important	8 (16)
Very important	18 (36)
Moderately important	18 (36)
Slightly important	5 (10)
Not at all important	1 (2)

Figure 4 shows the mean perceived moral difference between production methods contrasted in the vignettes by experimental condition. The mean perceived moral difference between production methods in the Environment/No Trace condition was 5.54 ( $SD = 1.36$ ) compared to 6.10 ( $SD = 1.30$ ) in the Environment/Trace condition. The mean perceived moral difference between production methods in the Human Welfare/No Trace condition was 5.28 ( $SD = 1.62$ ) compared to 5.36 ( $SD = 1.50$ ) in the Human Welfare/Trace condition. Finally, the mean perceived moral difference between production methods in the Animal Welfare/No Trace condition was 5.82 ( $SD = 1.30$ ) compared to 4.84 ( $SD = 2.01$ ) in the Animal Welfare/Trace condition. Table 9 shows the mean perceived moral difference between production methods for each individual vignette.

**Figure 4**

*Mean Perceived Moral Difference Between Production Methods Contrasted in*

*Vignettes, Presented by Experimental Condition (Error Bars Represent Standard Error)*



*Note.* Responses were on a 7-point Likert scale with anchors *not at all different* (coded as 1) and *extremely different* (coded as 7).  $N = 50$ .



**Table 9***Mean Perceived Moral Difference Between Production Methods by Individual Vignette*

Experimental condition	Vignette	Mean participant response	Std. dev.
Environment/No Trace	Tomato	4.83	1.42
	Tea	5.20	1.15
	Cookie	6.59	0.71
Environment/Trace	Apple	5.95	1.50
	Coffee beans	6.05	0.89
	Crisps	6.50	1.58
Human Welfare/No Trace	Banana	5.62	1.20
	Raisins	4.61	1.94
	Wine	5.73	1.49
Human Welfare/Trace	Grapes	5.57	1.12
	Coffee	4.14	1.70
	Chocolate	6.31	0.95
Animal Welfare/No Trace	Egg	6.40	1.12
	Tuna	6.00	1.13
	Chicken nuggets	5.25	1.37
Animal Welfare/Trace	Milk	5.94	1.06
	Lobster	4.25	2.24
	Bacon	4.39	2.15

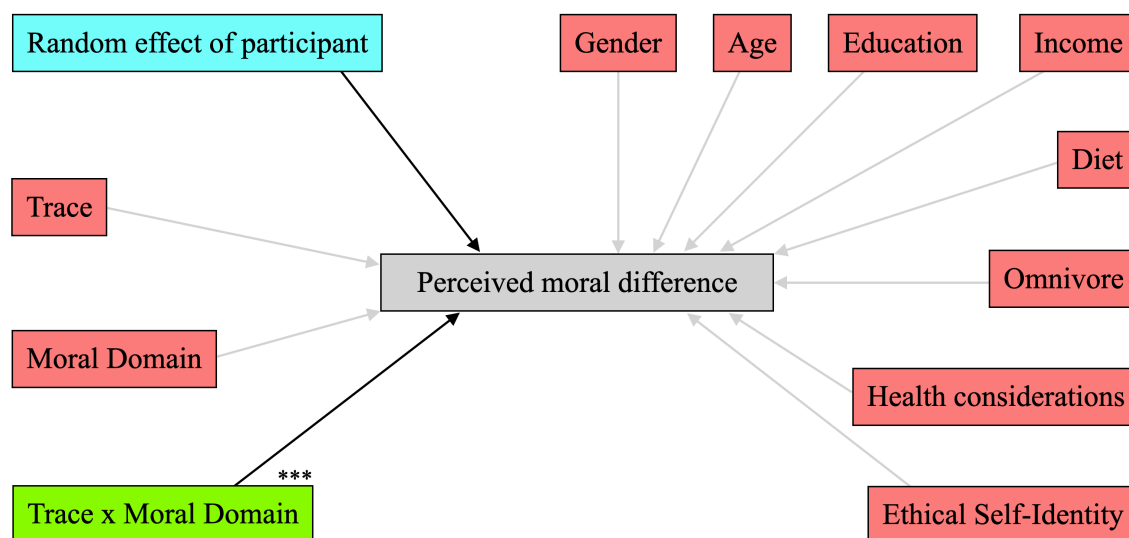
*Note.* Responses were on a 7-point Likert scale with anchors *not at all different* (coded as 1) and *extremely different* (coded as 7).

Mixed-effects linear regression modelling was conducted to investigate in more detail the statistical significance of various variables and their interactions in predicting participant responses. The modelling process followed the same procedure described for Pilot Study 1, such that that all predictors and interactions between predictors were tested for statistical significance at  $\alpha' = .01$ . No predictor had a significant main effect; only the interaction between Trace and Moral Domain was significant at  $p < .001$ . The model that best fit the data thus included the random effect of participant, the fixed main effects of Trace and Moral Domain respectively, as well as the fixed effect of the interaction between Trace and Moral Domain. This model is summarised in Table 10. In

terms of the respective comparisons between Trace and No Trace conditions at each level of Moral Domain, the implication of the significant interaction between the factors Trace and Moral Domain was that participants perceived the moral difference between production methods contrasted in the vignettes as significantly greater in the No Trace condition of the Animal Welfare domain compared to the Trace condition of the Animal Welfare domain. Figure 5 illustrates the statistical significance (at  $\alpha' = .01$ ) of the individual main and interaction effects when they were entered into the mixed-effects linear regression model as respective sole fixed-effects terms.

### Figure 5

*Overview of Statistical Significance of Individual Predictors and Interactions (Pilot Study 2)*



*Note.* The figure illustrates the statistical significance (at  $\alpha' = .01$ ) of individual predictors and interactions when they were entered as respective sole fixed-effects terms into a mixed-effects linear regression model predicting the perceived moral difference between production methods contrasted in the vignettes.

\*\*\*  $p < .001$ .

**Table 10**

*Results of Mixed-Effects Linear Regression Analysis With Reference Levels Animal*

*Welfare and No Trace*

Random effects	Variance	Std. dev.				
Participant (Intercept)	0.154	0.392				
Residual	2.202	1.484				
Fixed effects	Estimate	Std. error	<i>df</i>	<i>t</i>	<i>p</i>	
(Intercept)	5.820	0.217	287.860	26.812	<.001	***
Moral Domain: Environment	-0.280	0.297	245.000	-0.943	.346	
Moral Domain: Human Welfare	-0.540	0.297	245.000	-1.820	.070	
Trace: Trace	-0.980	0.297	245.000	-3.302	.001	**
Moral Domain: Environment x Trace: Trace	1.540	0.420	245.000	3.669	<.001	***
Moral Domain: Human Welfare x Trace: Trace	1.060	0.420	245.000	2.526	.012	

*Note.* \*\*\*  $p < .001$ ; \*\*  $p < .01$ .  $N = 50$ .

Fixed effects are reported in the format Predictor: Level; the specified levels are relative to the reference levels of the respective predictors. A positive coefficient estimate indicates that participants perceived the moral difference between production methods contrasted in the vignettes as greater at the specified levels compared to the reference levels of the respective predictors. A negative estimate indicates the opposite effect.

### ***Discussion***

The aim of Pilot Study 2 was to measure the perceived moral difference between food production methods contrasted in the vignettes that had been developed for Pilot Study 1. The results of Pilot Study 2 suggested that participants perceived the food production methods contrasted in the individual vignettes as morally different, although some vignettes provoked stronger perceptions of moral differences than others. The fact that perceptions of moral differences varied between individual vignettes was to be

expected, however, as vignettes had been designed such that it was predicted that the production methods contrasted in individual vignettes would be perceived as varying morally different: Some vignettes contrasted production methods with positive or negative ethical valence with production methods that were described as conventional or in ethically neutral terms, whereas other vignettes had been designed to contrast ethically positively valenced production methods with ethically negatively valenced production methods.

The factors Trace and Moral Domain had not been predicted to significantly affect the extent to which vignettes were perceived as morally different. In line with this prediction, neither Trace nor Moral Domain were found to have a significant main effect on participants' perceptions of moral differences between production methods. The statistical significance of the interaction between the factors Trace and Moral Domain was an unexpected result. However, the specific pattern of significant effects revealed by the model that best fit the data can be seen as corroborating the finding from Pilot Study 1 that participants' responses in the Animal Welfare/Trace condition may behave differently to the other experimental conditions. Future studies should explore whether this apparent phenomenon is merely the result of the content of the specific vignettes that were used in the current set of pilot studies, or whether it is the manifestation of particular attitudes regarding animal products.

### **Lab Study**

The aim of the Lab Study was to test the hypotheses that (1) ethical information is associated with higher taste ratings compared to unethical information, and (2) this difference in taste ratings between ethical and unethical information is greater in the case of (un)ethical information that is reliably associated with the occurrence of traces compared to (un)ethical information that is reliably associated with the absence of

traces.

The vignettes (and, consequently, the study foods, namely cookies and crisps) that were employed in the Lab Study were selected from a range of potential candidates on the basis of the findings of Pilot Studies 1 and 2. The main considerations that informed the selection of vignettes were threefold: First, to ensure that participants would perceive the alternative production methods of cookies and crisps described in the respective cookies and crisps vignettes as morally different to a similar extent, and that this perceived moral difference was large in absolute terms. Second, to ensure that the alternative production methods of cookies and crisps described in the respective cookies and crisps vignettes were reliably and to a similar extent associated with an expectation of noticeable differences in the Trace conditions, and with an expectation of no noticeable differences in the No Trace conditions. And third, that the morally relevant aspects of food production methods described in the vignettes were related to the same general moral domain; in the case of the cookies and crisps vignettes selected for the Lab Study, the moral domain that the vignettes were related to can be characterised as dealing with environmental issues. An additional consideration that supported the selection of the cookies and crisps vignettes was the fact that cookies and crisps are both indulgent, unhealthy, and heavily processed foods. This meant that the Lab Study could investigate the effect of ethical information on taste liking using study foods that previous research has found to yield inconsistent results with respect to the effect of ethical labelling on taste evaluations (e.g., Lee et al., 2013; Bratanova et al., 2015; Silva et al., 2017), as has been discussed in the Results and Discussion section of the systematic review provided in Chapter Two, as well as in the introduction to the current chapter.

## **Method**

### ***Participants and Ethics***

Fifty-nine participants took part in the study (49 female; mean age = 20.8,  $SD = 4.2$ ). The majority of participants were recruited from the undergraduate student body of the psychology department at a university in the North of England. The remaining participants were recruited on the basis of their previous participation in research unrelated to the current research but carried out at the same research laboratory, and based on responses to a poster advertising the study (provided in Appendix A.3) that had been put up at various points around the campus of the same university. Eligibility criteria were a minimum age of 18, the absence of any food allergies or intolerances to the study foods, and fluency in English. As a reward for their participation in the study, participants were either given a chocolate bar or, in the case of participants that were psychology undergraduate students at the university, awarded credits that would allow them to recruit participants for their own research projects.

Informed consent was obtained from participants at the beginning of the computer-based survey (hosted on Qualtrics, an online survey management platform) that guided participants through the study. The research was approved by the University of Leeds, School of Psychology Research Ethics Committee (ethics reference number: PSC-887, approval date: 03/02/2020). Data collection took place in early 2020 and was interrupted by the outbreak of the COVID-19 pandemic. Data collection was completed in late 2022 and early 2023 (ethics reference number: PSYC-572, approval date: 19/7/2022); for the 2022/2023 data collection, a further eligibility criterion was imposed such that only participants were eligible who had not experienced any changes to their sense of taste or smell as a result of a COVID-19 infection.

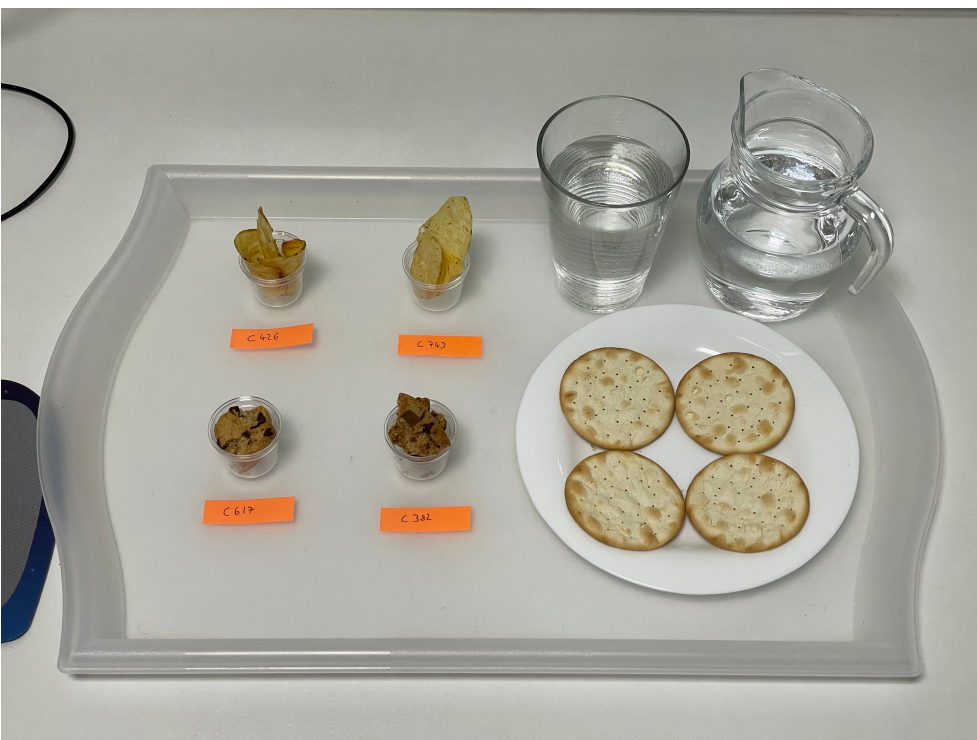
### ***Design***

The study employed a within-subject design and consisted of two parts. A

survey hosted on Qualtrics guided participants through the study. The first part of the survey implemented a 2x2 factorial design. Participants were asked to taste and evaluate two samples of cookies and two samples of crisps. Each cookie and crisp sample was accompanied, on Qualtrics, by a short vignette describing the sample's purported means of production. Vignettes manipulated the factors Trace (levels: Trace, No Trace) and Ethical Status (levels: Ethical, Unethical). The second part of the survey collected a range of demographic and questionnaire variables.

### ***Materials and Procedure***

Upon arrival at the lab, participants were guided to individual cubicles. Figure 6 illustrates how cubicles were set up prior to a participant's arrival. Cubicles were set up such that cookie and crisp samples were laid out in a square without any identifying information except meaningless alphanumerical labels (see Figure 7). Two types of cookie samples and two types of crisp samples were used as study foods, one more basic product and one more premium product respectively. Each participant tasted one sample of each cookie/crisp type. Before tasting each sample, participants were asked to eat a neutral cracker and drink some water. After they provided informed consent but before they moved onto section one of the survey, participants were asked to state how many hours ago they last ate.

**Figure 6***Example of Lab Cubicle Set Up***Figure 7***Example of Food Samples Set Up*



The vignettes accompanying the cookie and crisp samples on the computer screen were as follows:

**No Trace/Ethical.** Sample C183 is made from conventionally sourced ingredients in a modern factory that is highly optimised with regards to energy efficiency and with on-site waste-to-energy facilities to minimise waste and pollution. As a result of this, the factory leaves no net carbon footprint and causes only minimal disruptions to surrounding ecosystems.

**No Trace/Unethical.** Sample C437 is made from conventionally sourced ingredients in a factory that is poorly optimised with regards to energy efficiency as well as waste and pollution reduction. As a result of this, the factory leaves a significant carbon footprint and causes severe disruptions to surrounding ecosystems.

**Trace/Ethical.** Sample C362 is made using ingredients that are grown in a way that does not involve the use of any synthetic pesticides, herbicides or oil-based fertilisers. Pest and disease control rely exclusively on natural methods that do not have a disruptive effect on the surrounding ecosystems and ensure that soils remain fertile in the long term.

**Trace/Unethical.** Sample C278 is made using ingredients that are grown in a way that relies heavily on the use of agricultural chemicals. Pest and disease control is managed using synthetic pesticides, herbicides and oil-based fertilisers which can have a disruptive effect on the surrounding ecosystems, particularly in virtue of yielding barren soil and contaminating nearby water resources.

All four vignettes were presented individually to participants. The two vignettes pertaining to the same product type (cookies or crisps) were always presented back-to-back to emphasise the comparisons among the two cookie samples and the two crisp samples, respectively. After reading each vignette, participants were instructed to taste

the relevant sample. Participants were then asked to indicate to what extent they agreed with the following statements: [Sample] “is delicious”; “is good”; “makes me feel good”. Responses to these items were recorded with sliders on a 0-100 scale with anchors *strongly disagree* and *strongly agree*.

Assignment of product type (cookies or crisps) to Trace/No Trace conditions was randomised across participants such that one half of participants was presented with cookies in the Trace conditions and the other half was presented with crisps in the Trace conditions. The presentation orders of Trace and No Trace conditions, of product type (cookies and crisps), and of Ethical and Unethical conditions among cookies and crisps were fully counterbalanced to prevent any order or carryover effects.

After they tasted all four samples, participants moved on to the second part of the survey. In the second part of the survey, participants were asked to complete two scales:

**Ethical Self-Identity Scale.** The rationale for including the Ethical Self-Identity scale (Michaelidou & Hassan, 2008), as well as a description of the scale, has been provided in the Materials and Procedure section of Pilot Study 1, reported earlier in the current chapter.

**Ecoscale.** Given that the moral aspects described by the vignettes employed in the current study were related to environmental issues, nine items were adapted from the 31-item Ecoscale (Stone et al., 1995) as a measure of specifically environmental concern. The full 31-item Ecoscale was not used to ensure relevance of scale items to the current research, and to prevent participant fatigue. Items of the Ecoscale consist of statements to which participants indicate their agreement on 5-point Likert scales with anchors *strongly agree* and *strongly disagree*. Appendix A.4 contains the scale items used in the current study.

After responding to the scales, participants were asked to provide basic demographic information about themselves (gender, age, education level, household income bracket, dietary preference). The last item of the survey asked participants to indicate, in a text entry box, what hypotheses they suspected the study to be investigating. When they had completed the study, participants were thanked and debriefed.

## Results

Statistical analyses were conducted in R (version 4.2.2; R Core Team, 2022), using RStudio (version 2023.06.1+524) and the packages `tidyverse` (Wickham et al., 2019), `reshape2` (Wickham, 2007), `psych` (Revelle, 2022), `lme4` (Bates et al., 2015), `lmerTest` (Kuznetsova et al., 2017), `emmeans` (Lenth, 2023), and `ltm` (Rizopoulos, 2006). The statistical significance threshold was defined as  $\alpha = .05$ .

Participant characteristics are summarised in Table 11. In terms of the hypotheses that participants suspected the study to be investigating, many participants thought that the study was exploring the effect of ethical information about a food's production methods on perceptions of the food, but no participant picked up on the distinction between Trace-type versus No Trace-type ethical information about a food's production methods.

Scores on the two items of the Ethical Self-Identity scale were added together to produce a total Ethical Self-Identity score with a possible score range from 2 (lowest Ethical Self-Identity) to 14 (highest Ethical Self-Identity). The sample mean Ethical Self-Identity score was 10.3 ( $SD = 1.7$ , Cronbach's  $\alpha = 0.54$ ).

**Table 11***Participant Characteristics (Lab Study)*

Characteristic	<i>n</i> (%) ( <i>N</i> = 59)
Gender	
Female	49 (83.1)
Male	10 (16.9)
Age group	
18-21	47 (79.7)
22-29	10 (16.9)
30 and older	2 (3.4)
Education	
GCSE/some high school or equivalent	0 (0.0)
Vocational education	0 (0.0)
A-levels/completed high school or equivalent	52 (88.1)
Bachelor's degree	3 (5.1)
Master's degree or doctorate	4 (6.8)
Household income bracket	
Less than £10,000	4 (6.8)
£10,000 to £19,999	6 (10.2)
£20,000 to £34,999	9 (15.3)
£35,000 to £49,999	8 (13.6)
£50,000 to £74,999	13 (22.0)
£75,000 to £100,000	4 (6.8)
More than £100,000	4 (6.8)
Would rather not say	11 (18.6)
Dietary preference	
Omnivore	37 (62.7)
Flexitarian	10 (16.9)
Pollotarian	2 (3.4)
Pescatarian	2 (3.4)
Vegetarian	8 (13.6)
Vegan	0 (0.0)

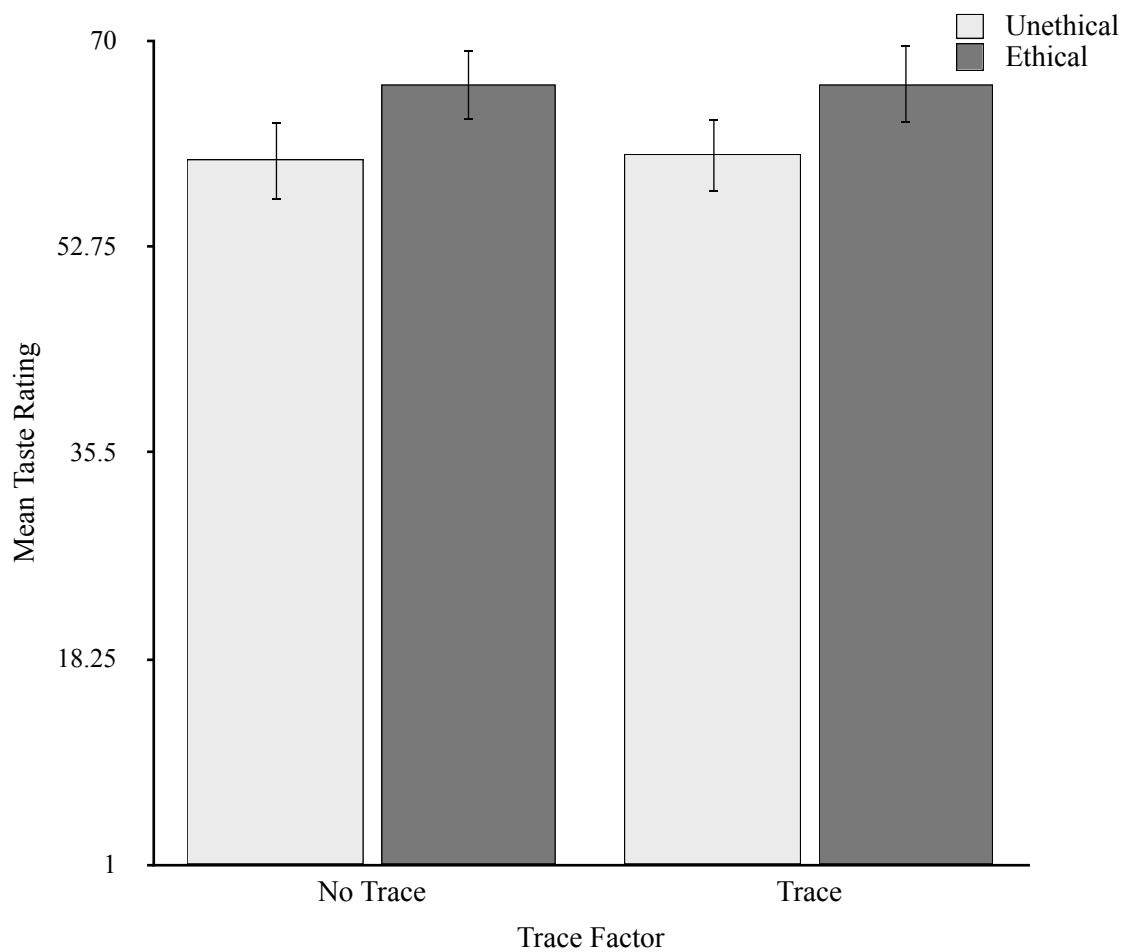
Scores on the nine items of the adapted Ecoscale were combined to form a total score measuring a participant's degree of environmental concern. The possible score range for environmental concern total scores was from 9 (lowest environmental concern) to 45 (highest environmental concern). The sample mean environmental concern score was 37.3 ( $SD = 4.2$ , Cronbach's  $\alpha = 0.70$ ).

Participant responses to the "is delicious", "is good", and "makes me feel good"

dependent variables were all moderately-highly correlated. Pearson correlation coefficients were .67 ( $p < .001$ ) for the correlation between “is delicious” and “is good” responses, .57 ( $p < .001$ ) for the correlation between “is delicious” and “makes me feel good” responses, and .68 ( $p < .001$ ) for the correlation between “is good” and “makes me feel good” responses. Because taste ratings were the dependent variable of primary interest in the current research, all subsequent statistical analyses featured only participant responses to the “is delicious” item. Figure 8 shows the mean taste ratings for each experimental condition.

**Figure 8**

*Mean Taste Ratings By Experimental Condition (Error Bars Represent Standard Error)*



Mixed-effects linear regression modelling was conducted to predict taste ratings. A base model was created that controlled for the random effect of participant. To control for any potential effects exerted on taste ratings by the specific study foods that were used in the study, the following fixed effects terms were added to the base model in sequence and retained in the model for all subsequent analyses regardless of their statistical significance level (the provided  $p$ -values are relative to the respective preceding modelling step): the main effect of Food Type (Cookies vs. Crisps; cookies were preferred at  $p = .001$ ), the main effect of Sample Type (Basic vs. Premium; premium products were preferred at  $p = .008$ ), as well as the interaction term of Food Type x Sample Type to statistically individuate the four specific study foods (that is, basic cookies, premium cookies, basic crisps, and premium crisps;  $p = .054$ ).

Once the random effect of participant as well as the fixed effects of the specific study foods were controlled for as outlined in the preceding paragraph, the predictors hours since last eaten, gender, age, education level, household income bracket, dietary preference (including a simplified predictor comparing omnivores to all non-omnivores), year of data collection (2020 vs. 2022-2023), Ethical Self-Identity total score, and environmental concern total score were tested for statistical significance. None of these predictors were significant; thus, none of them were kept in the model as there was no need to control for them.

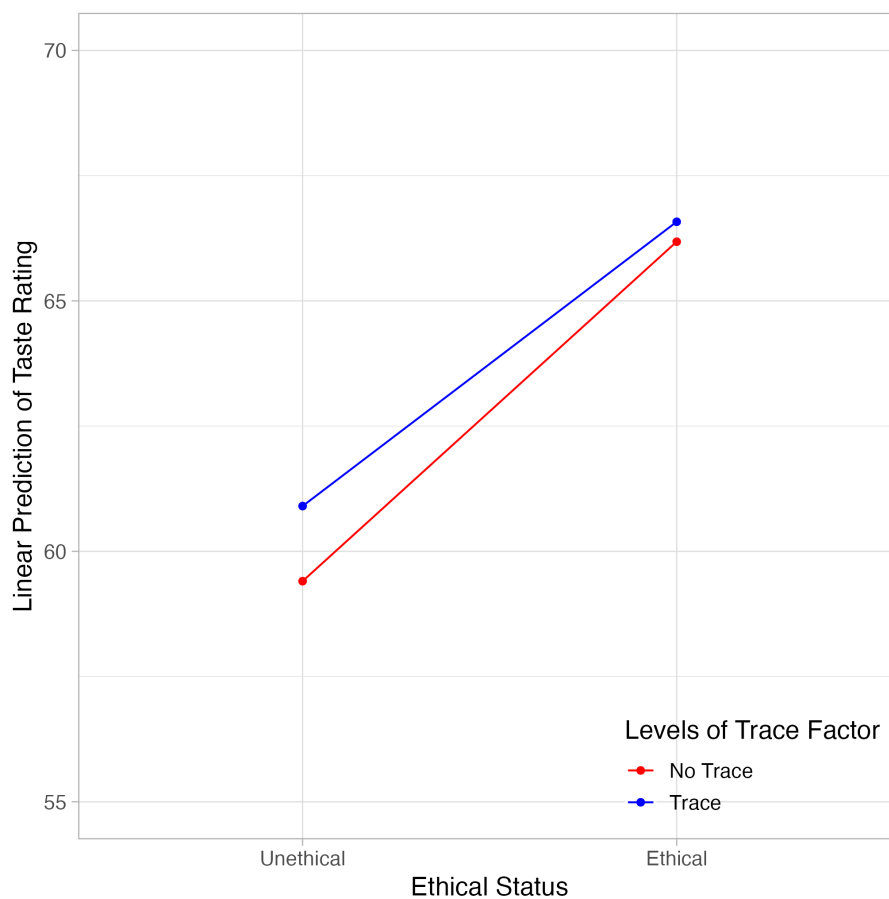
To test the first hypothesis explored by the current study — that ethical information is associated with higher taste ratings compared to unethical information — the experimental factor Ethical Status was subsequently added to the model as a fixed main effect and found to improve the model at  $p = .011$ , with samples in Ethical conditions receiving higher taste ratings compared to samples in Unethical conditions. The interactions Ethical Status x Ethical Self-Identity, Ethical Status x environmental

concern, and Ethical Status x year of data collection were tested to determine if Ethical Self-Identity, environmental concern, or the year of data collection moderated the effect of Ethical Status on taste ratings; however, none of these interactions were significant.

Finally, to test the second hypothesis — that the difference in taste ratings between Unethical and Ethical conditions is greater in the Trace condition compared to the No Trace condition — the interaction between the experimental factors Ethical Status and Trace was subsequently added to the model. The inclusion of the interaction Ethical Status x Trace did not significantly improve the model further. This final model (including the interaction term Ethical Status x Trace) is reported in Table 12 and Figure 9.

**Figure 9**

*Plot of Interaction Between Ethical Status and Trace in Predicting Taste Ratings*



**Table 12**

*Results of Mixed-Effects Linear Regression Analysis With Reference Levels Cookies, Basic Samples, Unethical, and No Trace*

Random effects	Variance	Std. dev.				
Participant (Intercept)	186.8	13.67				
Residual	354.7	18.83				
Fixed effects	Estimate	Std. error	<i>df</i>	<i>t</i>	<i>p</i>	
(Intercept)	57.789	3.697	219.913	15.632	<.001	***
Food Type: Crisps	-3.432	3.474	171.000	-0.988	.325	
Sample Type: Premium	11.523	3.470	171.000	3.321	.001	**
Ethical Status: Ethical	6.777	3.470	171.000	1.953	.053	
Trace: Trace	1.499	3.476	171.000	0.431	.667	
Food Type: Crisps x Sample Type: Premium	-9.720	4.905	171.000	-1.982	.049	*
Ethical Status: Ethical x Trace: Trace	-1.101	4.910	171.000	-0.224	.823	

*Note.* \*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$ .  $N = 59$ .

Fixed effects are reported in the format Predictor: Level; the specified levels are relative to the reference levels of the respective predictors. A positive coefficient estimate indicates that participants gave samples a higher taste rating at the specified levels compared to the reference levels of the respective predictors. A negative estimate indicates the opposite effect.

## Discussion

The aim of the current study was to test two hypotheses: first, that food samples (cookies and crisps) described in ethically positive terms would receive higher taste ratings compared to samples described in ethically negative terms; and second, that the difference in taste ratings between ethical and unethical information is greater in the case of (un)ethical information that is associated with the expected presence of traces in



the food compared to (un)ethical information that is associated with the expected absence of traces in the food.

The results of the current research indicate that the taste rating of cookies and crisps is affected by ethical information. In particular, there was a significant main effect of Ethical Status the relative valence of which supported the first hypothesis: Cookies and crisps that were described in ethically positive terms were given higher taste ratings compared to cookies and crisps described in ethically negative terms. The results did not support the second hypothesis, however: It was not the case that the difference in taste ratings between Ethical and Unethical conditions was greater in Trace conditions compared to No Trace conditions. That is, the pattern of effects due to Ethical Status was the same in Trace and No Trace conditions.

The observed main effect of Ethical Status is consistent with previous research that found an effect of ethical information on taste evaluation (e.g., Hemmerling et al., 2013; Lotz et al., 2013; Sörqvist et al., 2015). In regard to the relative valence of this effect, the findings of the current study replicate the results reported by the majority of previous studies (as discussed in detail in the previous chapter) that found an effect of ethical information on taste evaluation: Food samples that were described in ethically positive terms received higher taste ratings compared to food samples that were described in ethically negative terms. The result of the current research regarding this relative valence of the effect of ethical information on taste evaluation is particularly significant in light of the fact that previous research that has found the relative valence of the effect to be reversed (Lee et al., 2013), or that has found no effect (Bratanova et al., 2015; Silva et al., 2017), has tended to use indulgent and heavily processed foods similar to the foods that were used in the current study (cookies and crisps). The findings of the current study should not be considered as decisively settling the question

of the relative valence of the effect of ethical information on taste ratings in the case of indulgent foods such as cookies and crisps. However, the results of the current research can be seen as pushing the pattern of results observed across studies in relation to indulgent foods towards being more in line with the relative valence of the effect of ethical information on taste ratings that has typically been observed for other, non-indulgent food items (e.g., Hemmerling et al., 2013; Sörqvist et al., 2015).

As has been discussed in the Results and Discussion section of the systematic review reported in Chapter Two, it is further plausible that cultural factors play a role in determining the relative valence of the effect of ethical information on taste evaluation. The previously mentioned study conducted by Lee et al. (2013), in particular, was conducted in the US, where previous research has found organic labelling to be associated with an expectation of lower taste quality compared to non-organic food (Schuldt & Hannahan, 2013), or has found no effect of organic labelling on expected taste (Ellison et al., 2016). In contrast, the opposite expectation has been observed in European consumers (Prada et al., 2017; Bratanova et al., 2015), so it is possible that the relative valence of the effect of ethical information on taste evaluation observed in the current study can be explained, at least in part, in terms of such differences in attitudes towards eco-friendly food labelling between US and European consumers.

Relatedly, previous research has found that the ethical concern of participants can moderate the effect of ethical information on taste evaluation (e.g., Laureati et al., 2013). The results of the current study did not replicate this finding; neither Ethical Self-Identity nor environmental concern were found to moderate the effect of Ethical Status on taste ratings. The apparent lack of a moderating effect due to ethical concern in the current study could be explained by the characteristics of the sample that took part in the research. Specifically, participants in the current study were mostly students

that formed a very homogenous sample with respect to age, gender, and education level. In particular, mean scores for both Ethical Self-Identity and environmental concern were relatively high and narrowly dispersed, so it is possible that there was not enough variation in participants' Ethical Self-Identity and environmental concern scores for either of these two measures of ethical concern to have a statistically significant moderating effect. Future studies should verify that the findings of the current study are replicated for larger and more diverse samples of participants.

Other than the homogenous participant sample, the within-subject design is a further limitation of the current study as within-subject designs are prone to demand effects and participant fatigue (DeSarbo et al., 2004). The combination of the within-subject design and the lab setting likely also contributed to creating a somewhat artificial food tasting environment that is substantially different to typical eating experiences at home, in hospitality settings, or on the go, as these typically don't involve the direct comparison of two very similar food items. Future empirical work should explore whether the results of the current study are replicated when employing between-subjects or mixed within- and between-subjects designs, and administer such designs in more natural eating environments.

The results of the current research did not support the second hypothesis; there was no difference in the effect of Ethical Status on taste ratings between Trace and No Trace conditions. A limitation of the current study was that there was no manipulation check regarding participant expectations of noticeable differences between the food products. The rationale for this was to avoid introducing any kind of bias to participant responses. A potential replication study could ask participants about their expectations of noticeable differences between the food products some weeks after their participation in the study, to allow a more robust assessment of the extent to which expectations of

noticeable differences might affect taste ratings. Such a more robust assessment was not possible on the basis of the data collected for the current study; it could thus be argued that it cannot be ruled out that the observed effect of Ethical Status on taste ratings in both Trace and No Trace conditions was driven primarily by those participants who *did* expect noticeable differences between the food products. However, there is some reason to think that this seems unlikely to have been the case. In Pilot Study 1, 74.3% of participants expressed an expectation of noticeable differences in response to the vignette that formed the basis for the Trace condition in the current study, compared to only 28.9% of participants who expressed an expectation of noticeable differences in response to the vignette that formed the basis for the No Trace condition in the current study. Thus, unless participant expectations regarding noticeable differences in the respective Trace and No Trace conditions of the current study differed markedly from the expectations observed in Pilot Study 1, it would be expected that there would be *some* difference in the effect of Ethical Status on taste ratings between Trace and No Trace conditions in the current study if it really had been the case that the effect of Ethical Status on taste ratings in both Trace and No Trace conditions was driven primarily by those participants who *did* expect noticeable differences between the food products. This is because much fewer participants would have expected noticeable differences in the No Trace condition compared to the Trace condition, which in turn would render it very unlikely for the pattern of effects that was observed in the current study to have obtained.

Nonetheless, additional empirical work involving larger sample sizes and using a greater variety of study foods and types of ethical information is required to further corroborate the claim that the second hypothesis should be rejected. One particular future study design could be to manipulate trace expectations in a mixed within- and

between-subjects design with ethical status as the within-subjects factor (manipulated using organic vs non-organic labelling), and manipulation of trace expectations as the between-subjects factor. In regard to the latter factor, participants in the manipulation group would be provided with allegedly scientific information that manipulates their expectations regarding traces by telling them, for example, that organic food production methods do not noticeably affect food products, whereas participants in the control group would not receive such information. If the effect of the organic labelling on taste ratings was weaker in the trace expectations manipulation group compared to the trace expectations control group, this could indicate that expectations regarding the presence of traces in food might yet play some role in driving the effect of ethical information on taste evaluation.

A further suggestion for future research could be to use the same general design of the current research, but to use the same food samples in Ethical and Unethical conditions. The current study used two different samples of cookies and crisps respectively to enhance the perceived plausibility of the study setup, and to avoid the impression that the samples being compared in Ethical and Unethical conditions were actually identical. However, a consequence of the approach taken in the present research was that there were clearly noticeable differences between the food products in both Trace and No Trace conditions, which may have worked against the study's design aim for participants to associate only the ethical information provided in the Trace conditions with the expectation of noticeable differences between the food products.

Overall, the findings of the empirical work presented in this chapter do not support the hypothesis that perceptions regarding traces play a role in driving the effect of ethical information on food taste evaluation. Chapter One ended with the suggestion that traces might play a role in establishing ethical-aesthetic value interaction in food if

traces could be thought of as constituting invitations for eaters to share moral perspectives regarding a food's means of production. The limitations discussed above mean that it may yet be premature to rule out the potential significance of the notion of a trace in establishing ethical-aesthetic value interaction in food. Nevertheless, the fact that participant taste evaluations followed the same pattern in Trace and No Trace conditions in the current study suggests that perceptions regarding traces were irrelevant with regard to whether, and how, taste evaluations were affected by ethical information. The findings of the present empirical research consequently do not amount to evidence for ethical-aesthetic value interaction.

From a philosophical perspective, it thus seems that the observed effect of ethical information on taste evaluation is more appropriately thought of as a food's ethical status exerting a kind of bias, or halo effect on taste evaluations, rather than as constitutive of genuine interaction between the ethical and the aesthetic. However, there may yet be an alternative conceptual approach available to establish that the empirically observed effect of a food's ethical status on gustatory experience may constitute genuine ethical-aesthetic value interaction after all. The idea would be that if it could be determined that the ethical status of food affects a manner of engaging with food that is appropriately characterised as *aesthetic* engagement, then this could provide the conceptual basis for ethical-aesthetic value interaction in food. The following two chapters will explore this proposal in depth. Chapter Four will provide a discussion of whether gustatory experiences can be aesthetic, and Chapter Five will investigate empirically whether the ethical status of food affects specifically aesthetic ways of engaging with food.

Two final remarks are in order before the next chapter will begin exploring the issue of whether food experiences can be aesthetic. First, the imposition of lockdown

measures in response to the outbreak of the COVID-19 pandemic in March 2020 meant that plans for further empirical work to be conducted in the context of the current thesis had to be adapted so as to be implementable online. This proved particularly challenging given that this thesis was to be an investigation into how the ethical status of food affects taste experience. Nevertheless, the empirical work presented in Chapter Five proved illuminating with regard to the overarching research aims of the current thesis. And second, given that the cumulative empirical findings of Chapters Two and Three produced no evidence for the significance of the notion of a trace in the context of the effect of ethical information on taste evaluation, subsequent empirical work presented in this thesis did not take into account whether a particular manipulation of a food's ethical status was associated with expectations of traces in the food or not. Instead, it was prioritised to manipulate the ethical status of food in ways that represented as "pure" a manipulation of a food's ethical status as possible, that is, without potentially implying differences between variously labelled foods in relation to their healthiness or safety as may be the case with, for example, organic food labelling (Iweala et al., 2019; Hughner et al., 2007).

### Chapter Four: Can Food Experiences Be Aesthetic?

Philosophers of art have generally conceptualised the relationship between art and morality as an interaction between two different kinds of value: aesthetic (or artistic)<sup>13</sup> value on the one hand, and ethical value on the other hand. Thinking about the relationship between food and morality prompts the question of how it would be most appropriate to conceptualise the former kind of value in the food case. While it seems obvious that there can be various ways in which food can be ethically valued, it's not so obvious how we should conceptualise the former kind of value such that the potential interaction between this kind of value and a food's ethical value is analogous to the art case. Up to this point, I have generally referred to this former kind of value as a food's aesthetic or gustatory value to effectively refer to a food's "deliciousness", but I haven't yet discussed whether it is conceptually justified to employ the notion of the aesthetic to refer to the gustatory qualities of food — its taste, smell, texture, visual features, and so on — that determine the deliciousness of food. Perhaps the notion of the aesthetic is applicable in the food domain in more or less the same way as it is in the art domain, but this shouldn't just be assumed to be the case.

It seems that the kind of value we're looking for has to be something more specific than just a generic "value of/as food", as a conception of value this broad would presumably entail a food's ethical value and thus render the interaction between a food's ethical value and its general value of/as food meaningless. Instead, something like a

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<sup>13</sup> The distinction (if any) between the aesthetic and the artistic in the context of the ethical-aesthetic value interaction debate is not often elaborated on, and some authors such as Gaut (1998a) explicitly collapse the distinction altogether. However, with the exception of Kieran (2006), most authors have at least nominally been concerned with aesthetic rather than artistic value, so this is what I will take as my starting point. It is worth pointing out, however, that framing the debate in terms of artistic as opposed to aesthetic value brings up a number of interesting ontological issues in relation to food that echo the literature on the ontology of music in particular. Most notably, this includes the issue of what kind of thing in the food domain is ontologically analogous to the "work" in the art domain (The recipe? The prepared dish? Unmodified ingredients? Something else?), as well as associated questions of authorship in the food domain. See Chapter One for some discussion related to these issues.



food's deliciousness, or gustatory value, seems at first sight like a more promising contender for the kind of value we're looking for. Just as it might not strike one as immediately obvious that there would be any interaction between an artwork's ethical value and its aesthetic value, it's also not immediately obvious that there would be any interaction between a food's ethical value and its gustatory value. Thus, if it turned out that there really was such an interaction in the food domain, this would be a non-trivial and conceptually significant finding.

When I talk about judgements of gustatory value, I'm referring to the evaluation of the overall perceptual experience afforded by food. Such experiences are multisensory in that they comprise information derived from the senses of taste, smell, touch, sight, and hearing.<sup>14</sup> The trigeminal nerve also plays a role; it is responsible for food-related motor function such as biting and chewing and thus plays an important role in perceiving a food's texture. Aside from its gustatory value, there are, of course, many other ways in which we might find food valuable, be it for its nutritional, sociocultural, ethical or economic value, and perhaps a food's overall value as food would incorporate some or most of these different ways of valuing food. A similar thing can be said about art: Aesthetic (or artistic) value aside, works of art might have art-historical, sociocultural, ethical or economic value, and we might be able to articulate an artwork's overall value in a way that incorporates some or most of these different ways of valuing art. There is a sense, however, in which it seems that a food's gustatory value is the kind of food-specific value that plays the kind of role in our engagement with food that is

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<sup>14</sup> Beyond simply providing sensory information regarding how food looks and sounds (for example, while chewing), studies have shown that visual and auditory information can also affect the perception of flavour. For example, the same coffee is perceived as more bitter when drunk from a white mug compared to a blue or transparent mug (Van Doorn et al., 2014), and the same wine is perceived as fruitier and smoother when tasted whilst being exposed to a background soundtrack featuring wood-related sounds compared to tasting the wine in silence (Wang et al., 2019).

most analogous to the role that aesthetic value plays in our engagement with art: Insofar as the notion of gustatory value seems closely connected to the *pleasures* we derive from food, it appears to bear a certain structural similarity to eminent conceptions of the aesthetic that, in one way or another, ground aesthetic value in the pleasures we derive from our engagement with an object.

This line of thought might tempt one to think that perhaps an appropriately construed notion of gustatory value will ultimately just turn out to be a species of aesthetic value. In some sense this wouldn't be as surprising as it may seem initially: After all, the concept of the aesthetic is already not exclusively applicable to art; it is commonly applied to natural, everyday, or even scientific objects and our experiences of them. If it was the case that the gustatory is a species of the aesthetic, then there'd be no need to abandon the concept of the aesthetic when extending our thinking about the interaction between ethical value and aesthetic value from the domain of art to the domain of food. It should be pointed out that this isn't merely a question about what language we should use when discussing and thinking about our experiences of food. If the gustatory turned out to be a species of the aesthetic, this would have various conceptual implications for our understanding of gustatory experiences. The most significant implication probably concerns the issue of the normativity of gustatory judgements. Theories of the aesthetic commonly emphasise the subjective nature of aesthetic experience (where "subjective" means that aesthetic experiences are experiences that occur in the subject engaging with an object). At the same time, theories of the aesthetic typically feature an account of how some aesthetic judgements are seemingly better (or more correct, or more appropriate, or more objective) than other aesthetic judgements. That is, aesthetic judgements are generally thought to be subject to some kind of normativity. On many accounts of the aesthetic, this normativity

is in turn derived from an account of what it means to aesthetically engage with an object. If it was established that gustatory experiences can be aesthetic, then gustatory judgements would presumably be subject to the same, or a similar, kind of normativity. This, in turn, would have important implications for the issue of ethical-aesthetic value interaction in the food domain: If there was a way to distinguish between those gustatory experiences that meet the criteria for being genuinely aesthetic experiences and those that do not meet these criteria, then we might be in a position to defend stronger claims about the nature of the interaction between the aesthetic and the ethical in the food domain. For example, we might want to disregard certain cases where it looks as though we're dealing with ethical-aesthetic value interaction on the grounds that the case in question doesn't involve genuinely aesthetic engagement with food. Similarly, we can likely develop a sharper account of the relative valences of aesthetic and ethical judgements involved in ethical-aesthetic value interaction in food if there was a sense in which gustatory judgements can be more or less correct.

The focus of this chapter will be, in the first instance, on the more foundational issue of whether gustatory experiences can be aesthetic. The normativity of aesthetic judgements will not be the primary focus of the chapter, but it is an issue that the discussion will touch on at various points throughout the chapter. I will first introduce Kant's (1790/1911) conception of the aesthetic and with it Kant's distinction between the *beautiful* and the *agreeable*, and I will argue that there is a limited sense whereby food experiences really can be instances of what Kant referred to as the beautiful. I will then build on this by discussing Telfer's (1996) and Korsmeyer's (1999) more recent defences of the aesthetic status of food, before considering the status of food in the context of some contemporary accounts of the aesthetic — specifically, those by Nanay (2015) and Walton (1993) — that don't explicitly discuss the case of food. The overall

conclusion of the chapter will be that food experiences can indeed be aesthetic.

Throughout the chapter, the focus will be on what we might call typical everyday food experiences. Generally speaking, it will tend to be easier to make the case that a given concept applies to some atypical cases than to show that the concept broadly applies to typical cases. It would, presumably, be relatively straightforward to defend the aesthetic character of food when considering relatively atypical cases of food such as edible art, or perhaps haute cuisine. But the question of this chapter is about the aesthetic character of food more generally, and such special cases would not be able to sustain any positive claims to the effect that there can be an aesthetic component to our experiences of the foods we typically eat on a day to day basis.

### **Kant's Aesthetic Theory**

For Kant, an aesthetic judgement, which he refers to as a “judgement of taste”, is rooted in the “feeling of pleasure or displeasure” (Kant, 1790/1911, §1). Kant thinks that feelings of pleasure or displeasure as they might arise in the context of our engagement with an object are not objective, in the sense that such feelings don't pick out any actual features of the *object* in question. Because feelings of pleasure or displeasure don't correspond to any actual features of objects, there is no direct sense in which such feelings can be true or false of a given object. Instead, Kant contends that feelings of pleasure or displeasure arise in the *subject* as a result of how the subject is being affected by their engagement with the object. This kind of subjective hedonic response to an object is the defining characteristic of the aesthetic for Kant: “The judgement of taste, therefore, [...] is aesthetic — which means that it is one whose determining ground *cannot be other than subjective*” (emphasis original; Kant, 1790/1911, §1). Judgements of taste thus include gustatory judgements provided that gustatory judgements are subjective in the relevant sense. Indeed, it seems that this is

the case: It seems plausible to think of gustatory judgements as rooted in hedonic responses to our experience of eating food.

### **Kant's Distinction Between the Beautiful and the Agreeable**

Within the realm of the aesthetic, Kant distinguishes between what he refers to as the *beautiful* and the *agreeable*. Judgements of agreeableness are grounded in “judgements of sense” (Kant, 1790/1911, §14), that is, they are judgements merely of sensory pleasure or displeasure. Judgements of agreeableness, Kant argues, are valid only for the person making the judgement. Judgements of beauty, in contrast, are “judgements of taste proper” (Kant, 1790/1911, §14). Judgements of beauty are grounded in the pleasure or displeasure derived from the *reflective contemplation* of an object's *form*, where we might understand the notion of reflectively contemplating an object's form as holistically engaging with an object's perceptually accessible features and the relations among those features (Kant, 1790/1911, §14). Kant maintains that all judgements of beauty lay claim to universal inter-subjective validity, that is, a genuine judgement of beauty is expected by the individual making the judgement to be valid not just for themselves but universally among people: “The *beautiful*”, Kant asserts, “is that which [...] pleases universally” (emphasis original; Kant, 1790/1911, §9). Kant himself conceives of the notion of the aesthetic as referring to subjective hedonic responses in general; thus, for Kant, the aesthetic includes both the agreeable and the beautiful. However, over the course of post-Kantian philosophical theorising the notion of the aesthetic has morphed into something more akin to Kant's conception of the beautiful. Thus, going forward, my usage of the term “aesthetic” will differ from Kant's own use of the term: I will construe Kant's distinction between the beautiful and the agreeable as distinguishing between aesthetic and (one kind of) non-aesthetic hedonic responses.

Kant thinks that the gustatory — “the taste of the tongue, the palate, and the

throat” (Kant, 1790/1911, §7) — is a paragon of the agreeable. Classifying our hedonic responses to food as instances of the agreeable seems to readily accommodate the kind of intuition whereby “everyone to their taste” is an appropriate maxim to describe the normative scope of our gustatory judgements. Kant upholds this intuition (Kant, 1790/1911, §7); he contends that it would be conceptually misguided for me to demand of others that they agree with my judgement of, say, a tomato. The purported nature of my judgement of the tomato is such that that judgement is valid only for me. This is not to say that my judgement couldn’t change over time; if anything, the fact that our gustatory judgements can and often do change over time might be taken as lending further support to Kant’s claim that gustatory judgements are exemplary instances of the agreeable. In response, it might be said that it doesn’t necessarily seem so obvious that gustatory judgements don’t lay claim to some degree of inter-subjective validity; indeed, the practice of professional food and drink criticism seems grounded in the assumption that gustatory judgements can exhibit some degree of inter-subjective validity. I will revisit the issue of the normative scope of gustatory judgements at a later point in this chapter. For the time being, it is important to recognise that the difference in normative scope between judgements of the beautiful and judgements of the agreeable is not the definitive criterion that distinguishes between the beautiful and the agreeable, but, rather, is consequential to the way in which Kant distinguishes between the beautiful and the agreeable. So, to get a clearer sense of whether Kant is justified to assert that gustatory judgements can only ever be judgements of the agreeable, we need to take a closer look at the conceptual foundations of Kant’s distinction between the beautiful and the agreeable.

Broadly speaking, Kant’s distinction between the beautiful and the agreeable rests on two criteria. The first criterion concerns the character of the engagement with

an object. We have already encountered this criterion above: Judgements of agreeableness are grounded in purely sensory hedonic responses, while judgements of beauty are grounded in the hedonic responses afforded by the reflective contemplation of an object's perceptual features. Kant thinks that gustatory pleasures are instances of the former, that is, they are purely sensory hedonic responses that don't involve the kind of contemplative engagement that grounds the pleasures taken in the beautiful: The pleasures "found in eating and drinking" involve "mere enjoyments of sense" (Kant, 1790/1911, §42). Taken at face value, this strikes me as false. It seems that the notion of reflectively contemplating an object's perceptual features is straightforwardly applicable to the case of food. It might well be the case that not all our engagement with food actually meets this criterion. Eating without paying attention, be it because one is distracted by reading, by conversation, or simply because one is daydreaming, is common and presumably wouldn't count as reflectively contemplating the perceptual features of food. But it's not clear why eating while attending to the various nuances of flavour and texture present in the food, as well as to the interplay between those flavours and textures, should not qualify as reflective contemplation. And while this style of engaging with food might not necessarily be common in practice, it seems in principle applicable to all instances of eating food.

It might be objected that it looks as though sensory pleasure is still a common feature of our engagement with food. This may be so, but the food case doesn't seem fundamentally different from the art case in this regard. Both art and food can give rise to pleasures which we might characterise as sensory hedonic responses: the immediate sensory appeal of a particular colour in a painting, or of a particular sound in a piece of music, or of the sweetness of a biscuit, and so on. These pleasures seem grounded in a relatively passive hedonic reflex that occurs immediately upon engagement with the

object. Thus, they don't count as aesthetic pleasures: Kant maintains that in a genuinely aesthetic judgement, the pleasure that grounds the judgement is itself grounded in the reflective contemplation of the object. By contrast, in a judgement of agreeableness, the sensory pleasure taken in the object comes first, and the judgement of agreeableness is subsequently formed on the basis of this pleasure (Kant, 1790/1911, §9). However, in both the art case and the food case it seems that we can distinguish such immediate sensory hedonic reactions from hedonic responses that are grounded in the reflective contemplation of the formal features of the respective objects of aesthetic engagement: we might derive pleasure from contemplating the subtle differentiations in colour hue across the whole painting, or from attending to the interplay of various sonic textures in the piece of music, or from considering how the sweetness of the biscuit is unevenly distributed across various textures present in the biscuit and contrasted by a slightly salty coating that covers the entire biscuit. As Sweeney (2007, pp. 125-126) has argued, this manner of attending to food constitutes an active process of sustained engagement, rather than being an immediate hedonic response to the food. Sweeney suggests that the activity of reflectively contemplating food may be characterised as involving a three-stage temporal sequence. This temporal sequence begins with the initial contact of the sensory apparatus with the food, then continues to the point where the sensory impression of the food is "complete" in virtue of the food having passed through the entire relevant sensory apparatus of the mouth and nose, including swallowing the food, and finally concludes with a period of reflection on the holistic sensory experience. The pleasures derived from engaging with food in this manner thus seem to qualify as aesthetic in the sense that they are grounded in the reflective contemplative engagement with an object's perceptual features.

### **Kant's Notion of Disinterestedness**



I will now turn to the second criterion of Kant's distinction between the agreeable and the beautiful. This second criterion concerns the notion of *interest*: Judgements of the agreeable are interested, whereas judgements of the beautiful are disinterested. Here's how Kant introduces the notion of interest:

The delight which we connect with [...] the *real existence* of an object is called interest. Such a delight, therefore, *always involves a reference to the faculty of desire*, either as its determining ground, or else as necessarily implicated with its determining ground. (emphases added; Kant, 1790/1911, §2)

Kant contrasts a concern in the "real existence" of an object with the mere reflective contemplation of an object (Kant, 1790/1911, §5). The defining characteristic of a concern in an object's real existence is for the pleasure that is derived from the engagement with the object to be connected to one's desires. The connection to desires is both necessary and sufficient to render a given pleasure *interested*. The notion of desires employed by Kant is quite broad; it encompasses material desires related to money or ownership, as well as bodily desires including desires related to eating. In contrast, the necessary and sufficient condition for a pleasure to be *disinterested* is for that pleasure not to be connected to desires in any way, that is, for the pleasure to be derived in a manner that "preserve[s] complete indifference" (Kant, 1790/1911, §2) as regards the real existence of the object.

Kant further distinguishes between two ways in which interested pleasures can be connected to desires: Interested pleasures can either produce desires, or they can satisfy desires. Kant alludes to this distinction in the above quote when he says that interested pleasures can either constitute the "determining ground" of desire, or that they can be "necessarily implicated with [desire's] determining ground". The idea seems to be that the interested pleasures that characterise the agreeable initially induce a

desire for more of the kind of object that gave rise to the pleasure in the first place — thus establishing a concern with real existence, as I can only have more of such objects if they actually exist — and then, once such a desire has been “pathologically conditioned (by stimuli)” (Kant, 1790/1911, §5), it may subsequently be satisfied by means of what Kant refers to as “gratification” (Kant, 1790/1911, §3). Kant later states this distinction between desire production and desire satisfaction in a more explicit manner: “All interest presupposes a want, or calls one forth” (Kant, 1790/1911, §5). Kant specifically mentions the pleasures of eating as an example of interested pleasures (Kant, 1790/1911, §5). Before turning to the question of whether gustatory pleasures can be disinterested, however, I want to make two more points about Kant’s distinction between the beautiful and the agreeable.

First, I have introduced Kant’s distinction between the agreeable and the beautiful in terms of two criteria. The first criterion concerned the character of the engagement with an object: Judgements of the agreeable are grounded in sensory hedonic responses, whereas judgements of the beautiful are grounded in the pleasure afforded by reflective contemplation. The second criterion stipulated that pleasure taken in the agreeable is interested, whereas pleasure taken in the beautiful is disinterested. It is important to stress, however, that Kant considers these two criteria to be connected: Pleasure taken in the agreeable is defined as sensory pleasure, which in turn is necessarily interested (Kant, 1790/1911, §3). In contrast, pleasure taken in the beautiful is necessarily disinterested, that is, unconnected to desires; in turn, the lack of any connection to desires leaves the reflective contemplation of the object as the only available grounds for the pleasure afforded by the engagement with the object (Kant, 1790/1911, §6). In short, Kantian non-aesthetic pleasure is grounded in sensory, and thus interested, pleasure; Kantian aesthetic pleasure is disinterested pleasure grounded

in the reflective contemplation of objects.

Second, the disinterested character of Kantian aesthetic pleasure is fundamental to Kant's account of judgements of the beautiful as exhibiting inter-subjective validity. Genuine judgements of beauty are untainted by the corrupting influence of any idiosyncratic desires of the individual making the judgement; Kant thinks that this makes them impartial. This kind of impartiality, coupled with Kant's presupposition of a "common sense" (Kant, 1790/1911, §20) — the idea that the cognitive faculties that are involved in the process of reflective contemplation are shared by all humans — leads Kant to conclude that all genuine aesthetic judgements lay claim to inter-subjective validity. In contrast, judgements of the agreeable are grounded in interested pleasures, that is, pleasures that are connected in some way to the desires of the individual making the judgement. Kant thinks that desires are specific to individuals; thus, any judgement that is grounded in a pleasure that is itself connected to the desires of the individual making the judgement will be distorted in a way that is specific to that individual: "Every interest vitiates the judgement of taste and robs it of its impartiality" (Kant, 1790/1911, §13). Consequently, judgements that are grounded in interested pleasures are only valid for the individual making the judgement. This reasoning leads Kant to assert that judgements of the agreeable have merely "private validity" (Kant, 1790/1911, §9). I will come back to the general issue of normativity in the context of aesthetic judgement later on in this chapter; however, beyond registering my doubt here that Kant's presupposition of a set of common cognitive faculties that are shared by all humans will stand up in the context of contemporary empirical evidence, I will not discuss further the plausibility of Kant's account of the inter-subjective validity of aesthetic judgements.

I will now consider the question whether gustatory pleasures can be

disinterested. As we have seen above, pleasures can be interested either in virtue of satisfying desires, or in virtue of producing desires. I'll discuss the desire satisfaction case first, before turning to the desire production case.

### **Desire Satisfaction**

Often, though not always, we eat when we have some sort of desire to eat. For the purposes of the current discussion, I will use the notion of *appetite* to refer to the desire to eat generally construed. Appetite is related to hunger, although we can think of appetite as operating somewhat independently of hunger. In the empirical literature, hunger is generally construed as a physiological state regarding energy balance, specifically the state of being in a caloric or nutrient deficit (Nicola, 2016). Hunger thus understood is sometimes also referred to as “caloric hunger” (Morales & Berridge, 2020) and contrasts with the physiological state of satiety in regard to energy balance. Caloric hunger and appetite typically occur together, such as when we're feeling hungry and want to eat. But caloric hunger and appetite can also disassociate (Nicola, 2016), such as when we have an appetite in the absence of any nutrient deficit, or when we have no appetite even though we are in a state of caloric hunger. An example of appetite occurring in the absence of hunger might be the situation where one has a desire for dessert after a large dinner, whereas an example of having no appetite in the presence of hunger might be the situation where one hasn't eaten after a long day at work but is so exhausted that one doesn't want to eat any food.

The fact that we typically eat when we have some sort of appetite leads Kant to contend that the pleasures we derive from such eating are grounded in the satisfaction of desires, which in turn renders those pleasures interested (Kant articulates this sentiment in terms of the notion of hunger, though I take him to be referring to the experience of strong appetite as induced by caloric hunger):

‘Hunger is the best sauce; and people with a healthy appetite relish everything, so long as it is something they can eat.’ Such delight, consequently, gives no indication of taste [with respect to the aesthetic] having anything to say to the choice. Only when men have got all they want can we tell who among the crowd has taste or not. (Kant, 1790/1911, §5)

The first thing to point out here is that Kant seems to leave open, at least in principle, the possibility of deriving disinterested pleasures from eating. Specifically, he seems to be suggesting that pleasure derived from eating in the absence of appetite might be able to ground a genuinely aesthetic judgement of food. This point has also been made by Zangwill (1995, pp. 171-172) and Sweeney (2012, pp. 3-5), although Zangwill and Sweeney interpret the case differently. Zangwill’s interpretation is more permissive; he takes Kant to be leaving open the possibility of deriving disinterested pleasure from food as long as one didn’t have a specific appetite for the food being eaten prior to eating the food. By way of an example, Zangwill offers the case of deriving pleasure from eating ice cream when one didn’t have a previous desire to eat ice cream (Zangwill, 1995, p. 171). In contrast, Sweeney’s interpretation is more restrictive; he understands Kant to be suggesting that it would only be possible to derive disinterested pleasure from eating in a situation where one has already satisfied one’s appetite to the extent that one is not able to muster any additional appetite for anything else, such as after eating to the point of complete satiety (Sweeney, 2012, pp. 3-5). Sweeney’s interpretation more severely limits the range of cases where we might be able to derive disinterested pleasure from eating; after all, overeating past the point of complete satiety is rarely pleasant. Still, even after eating a very large meal we might be able to derive some disinterested pleasure from something like eating a mint drop, or drinking some tea. Zangwill’s interpretation accommodates a broader range of cases

where we might derive disinterested pleasure from food as he makes no stipulation with respect to already being in a state of satiety. However, we might wonder to what extent his ice cream example really satisfies the condition of being free from any appetite. It seems to me that the case could be construed as involving appetite: It might be that we're not initially aware of any appetite for ice cream, but that being offered ice cream arouses an appetite for ice cream in us which is subsequently satisfied by eating the ice cream. Of course, the same might be said about the cases of the mint drop or the tea; however, given the state of satiety assumed in those cases, it seems at least in principle plausible that being offered a mint drop or tea would not stimulate any appetite but that the gustatory experience of actually consuming the mint drop or the tea might nonetheless be pleasurable.

Generally speaking, Sweeney's interpretation strikes me as more faithful to what Kant seemed to have in mind when compared to Zangwill's interpretation. Still, regardless of which interpretation we might favour, it seems that the scope of gustatory pleasures that qualify as disinterested in either interpretation does not include the most common cases of gustatory pleasure, that is, gustatory pleasures that arise in the presence of some degree of appetite. Of course, it might turn out that those paradigmatic cases of gustatory pleasure turn out to be non-aesthetic, but we should explore if there might be a sense in which they can qualify as aesthetic on Kant's conception of aesthetic pleasure.

Before we turned to the issue of whether gustatory pleasures can be disinterested, we had tentatively concluded that the pleasures afforded by the reflective contemplative engagement with the perceptual features of food seem to qualify as aesthetic. The question now becomes whether the presence of appetite undermines the genuinely aesthetic character of this sort of reflective contemplative engagement with

food. I am not sure that it necessarily does. Recall the earlier example of the biscuit exhibiting various textures of varying degrees of sweetness that contrast with a slightly salty coating covering the biscuit. In this example, the pleasure afforded by reflectively contemplating the gustatory qualities of the biscuit does not seem to be grounded in the satisfaction of appetite. Even if some degree of appetite is present while eating the biscuit, it seems we can distinguish the pleasure derived from reflectively contemplating the biscuit's gustatory qualities from any pleasure we might take in the fact that the biscuit satisfies our appetite. These two kinds of pleasures — the pleasure derived from the reflective contemplation of the biscuit, and the pleasure taken in the fact that the biscuit satisfies our appetite — might co-exist, but it is not obvious that deriving pleasure from the reflective contemplation of the biscuit necessarily *involves* taking pleasure in the fact that the biscuit satisfies our appetite. Thus, it seems that we can derive disinterested pleasure from the experience of eating, although such disinterested pleasure might co-exist with the interested pleasure of satisfying our appetite.

Sweeney holds a similar view, and he further argues that art is similar to food in this respect (Sweeney, 2012, pp. 4-5). Sweeney notes that aesthetic engagement with art commonly involves the presence of some desire to engage with art. It's true that in the art case, the relevant desires seem more related to "certain emotional, cultural, and personal needs" (Sweeney, 2012, p. 5), as opposed to being related to the physical and biological needs that food meets. But Sweeney argues that our food-related desires are much more similar to our art-related desires than it might appear initially: We want food to speak to our emotional, cultural, and personal needs in a way that's not dissimilar to the art case. We want food to taste good, be comforting, appropriate to the occasion of eating, and so on. Assuming a certain degree of food security, we're not just interested in food meeting our purely physiological needs; the pleasures we derive from food are

about much more than “simply satisfying the requirements of basic nutrition” (Sweeney, 2012, p. 5).

It doesn't seem to me that all of the kinds of art- and food-related pleasures Sweeney mentions would necessarily meet the criteria for disinterestedness, but I take it that this isn't Sweeney's point. The point is, rather, that there seem to be no fundamental differences between art and food with respect to how art and food relate to our desires. This seems to imply two possibilities with regards to the question of whether we can derive disinterested pleasure from food. Either, if we assume that disinterested aesthetic engagement with art is possible, then there would seem to be no reason to hold that the way in which food relates to our desires undermines the possibility of disinterested aesthetic engagement with food. Or, perhaps the way in which art relates to our desires undermines the possibility of disinterested aesthetic engagement with art in the first place, in which case we might want to reject, or loosen, Kant's strict conception of disinterestedness in favour of something that more appropriately characterises our engagement with art. I suspect that Sweeney might be inclined towards the latter option, but I will not further address the question of whether Kant's conception of disinterestedness appropriately characterises our engagement with art. Instead, I want to explore in more detail whether the co-existence of disinterested and interested pleasure is acceptable on Kant's conception of disinterestedness.

Zangwill thinks that the pleasure derived from the experience of eating the ice cream is distinct from any pleasure related to the satisfaction of appetite (Zangwill, 1995, pp. 171-172). On his view, the fact that one's appetite is being satisfied presents no obstacle to the possibility of deriving genuinely disinterested pleasure from the experience of eating (Zangwill uses the word “hunger” rather than appetite to refer to the desire to eat):



[T]he pleasure one receives from eating the ice cream is not pleasure in the quelling of one's hunger. One may be pleased *that* one is eating, or be pleased *to be* eating. But this is quite another matter from the 'yum-yum-pleasure' [that is, the gustatory pleasure potentially qualifying as disinterested] one takes in the ice cream. (emphases original; Zangwill, 1995, p. 171)

Kant does indeed seem to allow, in a limited sense, the co-existence of disinterested pleasure and interested pleasure. Specifically, he grants that an object may give rise to interested pleasure *after* it has been disinterestedly judged to be beautiful, provided that this interested pleasure doesn't in any way affect the original disinterested judgement but instead merely co-exists with the original disinterested judgement:

[T]he judgement of taste by which something is declared beautiful must have no interest as its determining ground. But it does not follow from this that, after it has once been posited as a pure aesthetic judgement, an interest cannot then enter into combination with it. This combination, however, can never be anything but indirect. (Kant, 1790/1911, §41)

Note, however, that the kind of interested pleasure that Kant allows to co-exist with disinterested pleasure seems to be interested in virtue of being *produced* by one's engagement with the object. But this is different from allowing disinterested pleasures to co-exist with interested pleasure that is interested in virtue of *satisfying* some existing desire for the object. For example, Kant might grant the properly disinterested status of the pleasure I might take in reflectively contemplating the perceptual features of a rose, even if I subsequently derived interested pleasure from the rose upon finding out that I can exchange the rose for a block of tofu. But this is different from the ice cream or biscuit cases discussed before, where the appetite precedes the pleasures afforded by the experience of eating. Thus, even if we can distinguish between disinterested and

interested pleasures derived from eating in the presence of appetite, it seems that Kant would contend that the co-existence of the two kinds of pleasure undermines the properly disinterested character of the pleasure afforded by reflectively contemplating the food.

As a final modification to our candidate case of disinterested engagement with food, we might try to construct a situation where we derive pleasure from the reflective contemplation of food but take no pleasure at all in the satisfaction of any appetite. For example, we might not have a particularly strong appetite for anything in particular but are open to the experience of deriving pleasure from reflectively contemplating food, and while eating the food we're fully focused on this reflective contemplation. This sort of situation might aptly characterise situations of eating small amounts of foods that are well suited to sustaining a reflective contemplative gustatory encounter, such as tasting menus.

In response to the tasting menu-type case, I suspect Kant would point out that the case still involves the presence of some level of appetite. And even if it might seem that we only take pleasure in the reflective contemplation of the food on our plate, this reflective contemplative pleasure is still affected by the presence of some level of appetite. Specifically, to the extent that appetite is present, this appetite seems causally involved in enhancing the pleasures afforded by the reflective contemplation of the food. If no appetite was present at all, the pleasures derived from reflective contemplation are likely to be diminished. But if that's true — and empirical evidence suggests that it might be, to the extent that a reduction in the desire to eat a particular kind of food tends to correlate with a reduction in the hedonic liking of that kind of food (Finlayson et al., 2008) — then it seems that the pleasure derived from reflective contemplation is “necessarily implicated” (Kant, 1790/1911, §2) with desire. But Kant

doesn't allow for a disinterested pleasure to stand in such a necessary relation with desire, so it seems that the presence of any appetite renders the reflective contemplative pleasure interested after all.

Zangwill and Sweeney have different responses to this line of argument.

Zangwill rejects the conclusion: He argues that as long as the pleasure derived from the gustatory experience is of the appropriate reflective contemplative kind, it doesn't matter if the presence of appetite exerts a causal influence on the reflective contemplative pleasure. Zangwill interprets Kant to be suggesting that a merely causal connection between a pleasure and desire isn't sufficient to render the pleasure interested. Rather, the connection must be of a conscious, rational kind; what is meant by this is that the pleasure must be consciously taken in the satisfaction of a desire such as appetite for the pleasure to be rendered interested in virtue of desire satisfaction:

[T]he connection of pleasure [...] with the previous hungry desire is a non-rational, causal connection. That is, it is not that the pleasure has a content which stands in a logical relation to the content of the desire. The pleasure is directly in the niceness of the food. Hunger is not a motive which grounds the pleasure. So whether or not one is hungry beforehand, the yum-yum-pleasure in eating ice cream does not depend on beliefs about the actual or likely satisfaction of desire. (Zangwill, 1995, pp. 171-172)

Thus, on Zangwill's view, it seems that the properly disinterested status of reflective contemplative pleasure afforded by food is not undermined on account of the pleasure being causally related to the presence of appetite.

Sweeney, in contrast, accepts that the pleasure-enhancing role of appetite undermines the properly disinterested character of typical gustatory pleasures (Sweeney, 2012, pp. 5-6). He acknowledges that some degree of appetite positively contributes to

our enjoyment of food by “sharpen[ing] and aid[ing]” (Sweeney, 2012, p. 13) our reflective contemplative engagement with the food. (That is, unless the appetite is so overbearingly strong that it compromises our ability to exercise a discriminating attitude towards the food.) Sweeney admits that the pleasure-enhancing role of appetite violates Kant’s criterion of disinterestedness, which in turn undermines the genuinely aesthetic status of gustatory experiences on the terms of Kant’s aesthetic theory. Nevertheless, Sweeney offers a positive account of the possibility of aesthetic engagement with food. This positive account construes the Kantian notion of reflective contemplative engagement as being constitutive of aesthetic engagement but accepts the pleasure-enhancing role of appetite as something that doesn’t undermine the properly aesthetic status of our engagement with food. It is not entirely clear from Sweeney’s discussion whether he rejects Kant’s strict conception of disinterestedness as fundamental to aesthetic experience in general, or whether he rejects the requirement for aesthetic pleasure to be disinterested only in the context of food. The former seems to me the more coherent position; it is also, as will become apparent over the course of the remaining chapter, generally reflective of the ways in which contemporary philosophical thought about the concept of the aesthetic has evolved from Kant’s original account.

Before moving on to discuss the case of desire production, let’s briefly recap: It seems possible, at least in principle, to derive pleasure from the reflective contemplation of the gustatory qualities of food such that the pleasure is disinterested with respect to desire satisfaction. On the strictest interpretation of Kant’s account, the range of cases that qualify as disinterested in this way is very narrow, including only instances of eating in the absence of any appetite. However, if Zangwill is right in his interpretation of Kant’s account, then the range of cases is potentially much broader: Zangwill argues

that just because some appetite is being satisfied, this does not necessarily render gustatory pleasures interested. What matters is that the pleasure derived from the gustatory experience is not pleasure taken in the fact that one's appetite is being satisfied, but pleasure that is grounded in the reflective contemplative engagement with food.

### **Desire Production**

The gustatory pleasures afforded by food may give rise to all kinds of desires. Some of these desires will be about things other than food-related things. For example, the pleasure derived from eating gelato might induce a desire to visit Italy, or the rich flavour of a coconut curry might make one want to go for a walk. But these sorts of cases don't seem to be instances of the kind of desire production that Kant thinks renders a pleasure interested. Kant explicitly states that the relevant sort of desire production is that where pleasure "provokes a desire for similar objects" (Kant, 1790/1911, §3). He doesn't elaborate further on the specificity of the required similarity, but presumably the similarity requirement is not met if the desire produced is simply for objects of the same general category as the original object. Consider the following cases: The flavour experience of tasting something excessively bitter might induce the desire to eat something sweet in order to cover up the unpleasant bitterness; the spiciness of a dish might give rise to a desire for a soothing glass of milk; the flavour of a tomato might evoke a desire for mozzarella. The desire produced in these cases is in some sense for objects of the same general category as the original object (that is, food), but this kind of similarity strikes me as too tenuous to qualify as desire production that's relevant to Kant's account. If anything, it seems that these cases involve desire production for objects that might more naturally be described as opposite, or complimentary, to the objects that produced the desires.

The clearest way in which gustatory pleasures can be rendered interested on the grounds that they produce desires is for a gustatory pleasure to induce a desire for objects capable of affording more of the same kind of gustatory pleasure. In the heat of the moment we might refer to this as ‘moreishness’. This kind of desire production most obviously includes the desire to continue eating more of the food currently being eaten, where the gustatory experience afforded by the food will be more or less identical to the gustatory experience that originally gave rise to the desire. Relevant instances of desire production might also include cases where gustatory pleasures induce a desire for foods that are relatively similar, if not identical, to the food that produced the desire. Such cases may involve some degree of deviation from the gustatory experience afforded by the original food: The flavour experience afforded by a cherry tomato might induce a desire for more tomato flavour, but the flavour of a salad tomato, or the flavour of tomato soup, might differ substantially from the flavour of the cherry tomato that initially produced the desire. Still, it seems plausible that the gustatory pleasure afforded by the original cherry tomato is rendered interested on account of the fact that the pleasure produced a desire for similar objects.

One question that arises from the preceding discussion is how pervasive the phenomenon of relevant desire production is in the food domain. It certainly seems true that many foods are moreish. Zangwill discusses the experience of eating chocolate as a paradigmatic example of gustatory pleasure inducing moreishness-type desires (Zangwill, 1995, p. 172): Eating one piece of chocolate induces a desire for a second piece, which induces a desire for a third piece, and so on. But Zangwill notes that at some point, we will have had enough chocolate. Thus, it seems that the last piece of chocolate eaten did not produce any desire for more chocolate. This in turn implies that the pleasure afforded by the last piece of chocolate is not rendered interested in virtue of

desire production. Zangwill argues that such “‘sated’ pleasures” (Zangwill, 1995, p. 172) thus qualify, at least in principle, as disinterested.

We already saw in the previous section on desire satisfaction that there is an unappealing consequence of limiting the scope of disinterested gustatory pleasures to include only instances of such sated pleasures: Sated pleasures are likely to be diminished with respect to the intensity of the gustatory experience. The last piece of chocolate eaten is likely to have afforded less pleasure than the first. But I am not sure how committed we should be to the conclusion that only the last piece of chocolate could qualify as disinterested. Consider the case of engaging with art: It seems a plausible characterisation of paradigmatic aesthetic engagement with art that the pleasure afforded by the engagement plays a role in sustaining our motivation to continue the engagement.<sup>15</sup> But, given that Kant intends the notion of disinterestedness to be a fundamental component of an account of aesthetic engagement that is applicable to art, it would be an odd consequence of Kant’s account if seemingly paradigmatic instances of aesthetic engagement with art turned out not to be disinterested on the grounds that the pleasure afforded by the experience plays a role in sustaining the motivation to keep up the engagement. Similar to what I noted in the previous section, this might provide further reason to reject, or loosen, Kant’s articulation of disinterestedness. In any case, the food case doesn’t seem fundamentally different to the art case in this respect.

Even if we accept it as an outcome of Kant’s account that only the last piece of chocolate qualifies as disinterested with respect to desire production, it seems misguided to think that therefore only relatively diminished gustatory experiences could

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<sup>15</sup> The notion that aesthetic experience is characterised by aesthetically attending to an object in such a way that the pleasure afforded by the experience sustains the aesthetic engagement is defended by Matthen (2017), and will be revisited later in this chapter.

qualify as genuinely aesthetic on Kant's account. There seems to be a relatively broad range of food items that afford intense gustatory pleasures without typically inducing moreishness-type desires. Many of these foods will be foods of which we will typically only want to savour very small amounts, such as dark chocolate, espresso, certain cheeses, or dishes that are characterised by unusual but intriguing flavour combinations. There is a sense in which the notion of sated gustatory pleasure is still applicable to such foods, but not in a way that implies a diminished intensity of the experience due to the fact that it occurs at the end of a period of engagement with food. Rather, the idea would be that such foods immediately, and exclusively, afford sated and thus disinterested gustatory pleasures. (Perhaps we might refer to such pleasures as "closed" gustatory pleasures.)

Kant might have a response to both the case of the last piece of chocolate and to the case of foods that exclusively afford sated, or closed, gustatory pleasures: He could argue that the seemingly disinterested pleasures afforded in these cases might still produce a desire for similar objects at some point in the future. It may be true that the gustatory experience afforded by an espresso does not produce any desires for similar objects at the time when the espresso is drunk. But if and when the chance arises on a separate occasion to have an espresso again, then the pleasure afforded by the previous experience of drinking an espresso might yet produce the desire for another espresso on this subsequent occasion. Thus, perhaps we should conclude that the pleasure afforded by the initial espresso is interested on account of having given rise to a desire for similar objects after all.

Zangwill expresses scepticism but ultimately remains agnostic with regard to the issue of whether this kind of "indirect" (Zangwill, 1995, p. 172) connection between a previously experienced pleasure and a later occurring desire is sufficient to render the



original pleasure interested. However, I am inclined to think that this sort of indirect connection is indeed insufficient. Kant argues that if the pleasure afforded by an object gives rise to a desire for similar objects, then this renders the pleasure interested. But this particular relation between pleasure and desire doesn't seem to obtain in the hypothetical future situation where a previously experienced pleasure ostensibly gives rise to desire. Rather, it is the *memory* of a previously experienced pleasure, not the pleasure itself, that gives rise to the desire. This strikes me as too indirect a connection between past pleasure and subsequent desire to justify the claim that the subsequent desire retrospectively renders the past pleasure interested. Consider again the art case: Often, we are willing and may even actively desire to engage with a work of art again once some time has passed since our previous engagement with the work. But it would seem odd, I think, if the desire to revisit a work would retrospectively undermine the disinterested character of the pleasure afforded by the reflective contemplation of the work on the previous occasion of engaging with it.

Overall, then, it's not clear that desire production poses a significant obstacle to the question of whether gustatory pleasures can be disinterested. On a conservative interpretation of Kant's account, it might be that only sated pleasures — including the closed gustatory pleasures afforded by foods of which we typically only eat small amounts at a time, such as certain cheeses, or espresso — can qualify as disinterested with respect to desire production. However, I have further suggested that the pleasure afforded by the presumptively aesthetic engagement with an artwork often plays a motivational role in sustaining the activity of engaging with the work, and that this seems analogous to the motivational role that pleasure can play in the food case. But if that's right, then there seems to be no fundamental difference with regard to the disinterested status of the pleasures afforded by art and food as far as desire production

is concerned. It is a different question, however, and one that I will not address further, whether the motivational role that pleasure can play in sustaining aesthetic engagement is ultimately consistent with Kant's conception of disinterestedness, or whether it amounts to a reason to reject, or else modify, the notion of disinterestedness.

To conclude the current section, I would like to comment on the conclusion that Zangwill draws from his own contention that cases like the sated pleasure afforded by the last piece of chocolate might qualify as disinterested. The motivation for this commentary derives from the fact that Zangwill's conclusion is representative of a broader tendency in philosophical aesthetics up to the late 1990's to adopt a dismissive attitude regarding the possibility of gustatory pleasures qualifying as genuinely aesthetic.

Zangwill does not conclude that sated pleasures might qualify as beautiful on the grounds that they are disinterested. Instead, he suggests that sated pleasures pose a problem for Kant's view that disinterestedness is both necessary and sufficient as a criterion to distinguish between the beautiful and the agreeable. Sated pleasures put pressure on the sufficiency criterion in particular: If it was the case that some pleasures in the agreeable are in fact disinterested, then a pleasure's disinterestedness cannot be sufficient to establish its membership in the domain of the beautiful. Zangwill's resistance to concluding that some food pleasures can be beautiful seems grounded in his conception of the respective domains of the agreeable and the beautiful. On this conception, the pleasures derived from food are presumed to fall within the domain of the agreeable; thus, if some food pleasures turned out to be disinterested, then this leads Zangwill to conclude something about the role of disinterestedness in Kant's aesthetic theory rather than concluding that some food pleasures fall within the domain of the beautiful.

Zangwill's insistence that the pleasures derived from food fall within the domain of the agreeable, in turn, seems grounded in a particular view of the ostensible normative scope of gustatory judgements. Consider the following section, where Zangwill considers whether the "pleasures of amusement" (that is, pleasures related to humour) could be re-categorised, as it were, as falling within the domain of the beautiful:

Someone might try to ease around the problem that pleasures of amusement create for Kant by widening the notion of pleasure of the beautiful so as to include the pleasures of amusement and by narrowing the pleasure of the agreeable so as to exclude such pleasures. But this is not a good idea; for the pleasures of amusement are on a par with those in drinking Canary wine when it comes to their lack of what Kant calls 'universal validity.' By contrast with pleasures in the beautiful, 'anything goes' when it comes to pleasures of amusement. Judgements of amusement lack the normative aspirations of judgements of beauty. This is a crucial difference. (Zangwill, 1995, p. 174)

But this seems, at the very least, not obvious. It's not clear that, normatively speaking, "anything goes" in the domains of food, or humour. The issue of whether judgements of food can exhibit a degree of normativity in virtue of being justified in a manner that's analogous to how judgements of art can be justified will be explored further in the next section of this chapter. For the time being, however, it should suffice to point to the previously raised example of professional food and drink criticism, and in particular to the judgements of food and drink that are produced by such criticism. Such judgements don't seem to reflect the notion that "anything goes" in the food domain, but rather seem predicated on the idea that judgements of food and drink can have normative aspirations that are in some sense similar to those of judgements of art.

Similarly, humour is often critically evaluated in a manner that seems analogous to art (one may even wonder how deep the conceptual differences between works of art and many comic works are in the first place; for related discussion, see Gaut (1998b, p. 65) and Carroll (1991, p. 294)). But if it is the case that judgements of food can have similar normative aspirations to judgements of beauty, then there's no reason to continue insisting that the pleasures derived from food necessarily fall within the domain of the agreeable, especially if we have already found some of them (namely, sated, as well as closed, gustatory pleasures) to be disinterested with respect to desire production. Instead, it seems that we can preserve Kant's thesis that disinterestedness is both necessary and sufficient for a pleasure to fall within the domain of the beautiful, but that we should accept the conclusion that the domain of the beautiful includes some of the gustatory pleasures afforded by food.

### **Contemporary Accounts of the Aesthetic**

In the late 1990's, the writings by Telfer and Korsmeyer contributed significantly to elevating the status of food in aesthetic theorising from being a subject of relative neglect to being a topic considered worthy of serious philosophical reflection. (This relative neglect is attributable in no small part to the lasting effect of Kant's conception of disinterestedness on post-Kantian aesthetic theorising.) I will first provide a brief overview of Telfer's account of aesthetic reactions and how it relates to Kant's conception of the aesthetic. I will then discuss in more detail Korsmeyer's cognitivist account of the aesthetic character of food. Finally, I will consider how food fits into two contemporary accounts of the aesthetic — the accounts by Nanay and by Walton — that don't explicitly discuss the question of whether food experiences can be aesthetic.

#### **Telfer and the Move From Disinterestedness to Non-Instrumentality**

Although she doesn't explicitly reference Kant in her discussion of what makes a reaction aesthetic, Telfer's account of aesthetic reactions may be characterised as broadly Kantian in spirit. Like Kant, Telfer thinks that aesthetic reactions are a type of pleasure, and that what distinguishes the pleasure involved in an aesthetic reaction from other types of pleasure has to do with the grounds for the pleasure. For Kant, pleasure in the beautiful has to be grounded in the reflective contemplation of an object's formal features. Importantly, the pleasure derived from this contemplation must be disinterested, that is, the pleasure must be unrelated to the satisfaction or production of desires. Telfer employs a similar notion to Kantian disinterestedness, although she doesn't appeal to desires in framing her view. Telfer thinks of aesthetic reactions as grounded in appreciating an object's perceptual features in such a way that the appreciation is of the object for its own sake, that is, without taking into consideration any practical benefit the object might bring to anyone (Telfer, 1996, pp. 41-42). Rather than using the term disinterested, however, Telfer prefers to refer to aesthetic reactions as being "non-instrumental" (Telfer, 1996, p. 42).

Telfer thinks of aesthetic reactions as frequently laying claim to some sort of objectivity (Telfer, 1996, p. 43). This constitutes a further similarity to Kant's view, and Telfer's articulation of the notion that aesthetic judgements often lay claim to intersubjective validity could again be described as broadly Kantian in spirit. She notes that even though the grounds of aesthetic reactions are subjective, we typically articulate our aesthetic reactions in a way that seems to resemble attributing a property to an object. For example, we might say that a film *is* surreally beautiful, or that a piece of music *is* contrapuntally elegant, or that a mountain landscape *is* sublime. Telfer ultimately remains agnostic about the issue of whether something like the surreal beauty of a film really is a genuine property of the film. (She suggests that surreal beauty might be

thought of as the film possessing the property of having the capacity to give rise to the experience of surreal beauty.) Instead, she proposes that judging a film to be surreally beautiful is grounded in the idea that the film is constituted in such a way as to somehow merit, or warrant, the reaction of judging it to be surreally beautiful. Aesthetic judgements can thus be understood as judgements about what reactions an object merits when attending to the object for its own sake. And if that's the case, then it's plausible to think that there is a sense in which an aesthetic judgement of an object generalises, "because [the object] has qualities which other people also would appreciate or come to appreciate in it" (Telfer, 1996, p. 43). This doesn't rule out, however, that we might sometimes disagree about what reactions a particular object merits, in which case we can argue about the aptness of our aesthetic judgements.

The primary challenge of applying Kant's view to food lay in discussing whether the pleasures derived from food can be disinterested. In the case of Telfer, it seems fairly obvious that judgements of food often lay claim to some sort of intersubjective validity in a way that mirrors how we articulate non-controversial cases of aesthetic judgements: This pizza is delicious, that hummus is balanced, and so on. It thus seems in principle plausible that we can think of at least some food judgements as being about what reactions a food merits when attending to it for its own sake. The outstanding challenge for Telfer's view, similar to what was the case with Kant, is to establish that we can appreciate food non-instrumentally, that is, for its own sake.

Telfer's notion of non-instrumentality relaxes Kant's original notion of disinterestedness in a way that brings food experiences within the clear purview of the aesthetic. Non-instrumentality requires appreciating an object for its own sake, but non-instrumentality is not strictly tied up with the exclusion of desires. As such, the possibility of appreciating an object non-instrumentally becomes somewhat detached

from the question of whether desires are involved at any point in the engagement with the object. Note that this doesn't mean that desires are suddenly relevant to aesthetic evaluation. This is because a judgement of an object that is formed on the basis of one's desires is not a judgement of the object for its own sake. The point is rather that an object's possession of some practical benefit — which might bring the object into a relation with our desires, such as when we eat because we're hungry — doesn't necessarily rule out aesthetic engagement with the object: “[W]e can distinguish liking the taste and smell of food from approving of it instrumentally on the grounds that it is nourishing” (Telfer, 1996, p. 44). The fact that food typically has many practical benefits thus presents no obstacle to the notion that we can have aesthetic reactions to food. Further, we can give a positive characterisation of how we can engage with food aesthetically. Telfer dubs this “aesthetic eating”: “eating with attention and discernment food which repays attention and discernment” (Telfer, 1996, p. 57). Such aesthetic eating will in turn give rise to aesthetic reactions to food, that is, reactions that are grounded in the appreciation of the perceptual features of food — how it tastes, smells, feels, and looks — for its own sake.

### **Korsmeyer's Cognitivist Conception of the Aesthetic**

Korsmeyer, like Telfer, is a proponent of the idea that food experiences can be aesthetic. Korsmeyer defends the aesthetic status of food against two main objections. The first objection is that the flavour experiences we derive from food are not the kinds of experiences that qualify as aesthetic. The second objection concerns what Korsmeyer dubs the “logic” of flavour experiences; the objection is that flavour judgements follow a different logic compared to judgements that are genuinely aesthetic. I will discuss Korsmeyer's responses to these objections in turn, focusing mostly on the second objection.

Korsmeyer's reply to the first objection (Korsmeyer, 1999, pp. 104-107) covers similar conceptual ground to Telfer's account of how we can have aesthetic reactions to food. The objection is that the flavour experiences we derive from food are not the kinds of experiences that qualify as aesthetic. The main thrust of the objection as characterised by Korsmeyer derives from the claim that food experiences cannot be aesthetic because they are too bodily. Specifically, they are too bodily in the sense that (typical) food experiences involve the ingestion of objects, whereas typical aesthetic experiences seem to be grounded in the senses of hearing or vision. The intimate connection between food and the body means that food experiences are beholden to the needs and wants of the body — the obvious example being hunger — in a way that supposedly robs us of the required intellectual distance, or disinterestedness, to be able to engage with food aesthetically.<sup>16</sup> The objection is thus another articulation of the notion of disinterestedness, although one that is less rigorously formulated than Kant's.

Korsmeyer's reply to the objection can be separated into a negative and a positive component. The negative component is her dismissal of the notion that food experiences cannot be disinterested. Korsmeyer adopts a line of argument here that is similar to Telfer's (and that, in a further parallel to Telfer, doesn't explicitly consider Kant's stricter formulation of disinterestedness): Korsmeyer doesn't consider it necessarily detrimental to a food's aesthetic status if the food also has some practical or instrumental value on account of being filling or nutritious. It is sufficient that we can separate our appreciation of the food for its instrumental value from our appreciation of the flavour experience derived from the food: "Evidently the fact that we can savour without thinking about nutrition qualifies this taste pleasure as disinterested"

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<sup>16</sup> There are many other facets to the notion that food experiences are too bodily to count as aesthetic that aren't relevant to the current discussion; Korsmeyer discusses and dismantles many of these facets and their historical origins in Chapters One and Two of her book *Making Sense of Taste* (1999).



(Korsmeyer, 1999, p. 106).

This leads us to the positive component of Korsmeyer's reply, that is, her conception of what it means for an experience to be aesthetic. Korsmeyer doesn't provide a full-blown account of aesthetic experience; instead, she notes some of the central characteristics of aesthetic experiences. Her general line of thought is again similar to Telfer's; in fact, Korsmeyer explicitly references Telfer's account of aesthetic experience discussed previously. As such, Korsmeyer highlights the pleasure derived from the reflective engagement with an object's perceptual features as characteristic of aesthetic experience: Aesthetic experience "is pleurably reflective" (Korsmeyer, 1999, p. 107), and it involves "appreciation of qualities presented to experience" (Korsmeyer, 1999, p. 117). Like Telfer, Korsmeyer also emphasises the role of aesthetically attending to objects in order to undergo an aesthetic experience. As applied to food, this gives us Korsmeyer's articulation of aesthetic eating: "Careful, alert tasting [that] directs attention to the object of sensation" (Korsmeyer, 1999, p. 106). The rejection of the idea that food experiences cannot be disinterested, coupled with a conception of the aesthetic experience of food as reflective engagement with a food's perceptual features, thus leads Korsmeyer to conclude that food experiences can be aesthetic.

The second objection Korsmeyer discusses — that gustatory judgements follow a different logic compared to judgements that are genuinely aesthetic — concerns the grounds of the judgement rather than the character of the experience. Korsmeyer contends that this objection is the more serious one, and that it needs to be countered for any reply to the first objection to be effective (Korsmeyer, 1999, pp. 109-110). She associates the objection with Shiner (1996), who contends that (a) genuine aesthetic judgements make reference to features of *objects*, and (b) vindication of aesthetic judgements is a matter of *critical justification*, that is, the endeavour of relating the

object under consideration to a set of criteria. In contrast, Shiner claims that (a) gustatory judgements make reference to features of *sentiments* that arise in the person making the judgement, and (b) the aptness of a gustatory judgement can be fully determined by way of *causal explanation*, that is, by relating the asserted judgement to the causal story of what sensory impressions the food under consideration is capable of inducing.

To illustrate the difference between aesthetic and gustatory judgements, Shiner discusses how a judgement of the dynamic tautness of a string quartet is vindicated and compares this to how a judgement of the flavour of wine is vindicated (Shiner, 1996, pp. 241-242). If someone proclaims to sense dynamic tautness in a string quartet, Shiner contends that they can justify their judgement by pointing to “relevant structural properties” (Shiner, 1996, p. 241) of the string quartet and relating these structural properties to “general rules connecting certain harmonic structures, meters, and rhythms with dynamic tautness in pieces of music” (Shiner, 1996, p. 242). Vindication in the aesthetic case thus proceeds by relating properties of the object (the string quartet) to a set of criteria (the general rules that indicate what constitutes dynamic tautness).<sup>17</sup>

In the gustatory case, Shiner argues that someone who claims that a wine tastes flinty has nothing else to point to than their own sentiment, that is, their sensory impression of the flavour of the wine: “There is, by contrast, no property of the taste other than its flintiness to which one can point in order to vindicate a claim about its flintiness” (Shiner, 1996, p. 242). To vindicate the judgment that the wine tastes flinty, tasted flintiness would first have to be correlated with a particular physicochemical makeup of wine, and the wine would then have to be shown to instantiate that

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<sup>17</sup> The idea that aesthetic judgements are criterially justified also provides a way of further unpacking the notion — introduced in the previous discussion of Telfer — that the aptness of aesthetic judgements is a matter of whether the features of the object warrant a particular aesthetic response.

physicochemical makeup (Shiner, 1996, p. 241). Vindication in the gustatory domain thus proceeds by relating properties of sentiments (the flavour experience induced by the wine) to causes (the general principles that govern flavour perception). There is a structural similarity between aesthetic and gustatory vindication insofar as both proceed by applying general rules or principles to particular cases, but the general rules of relevance in the aesthetic domain are “general rules of criterial justification” (Shiner, 1996, p. 242) that refer to properties of objects, whereas in the gustatory domain the general rules of relevance are “general rules of causal explanation” (Shiner, 1996, p. 242) that account for properties of experiences induced by objects.

A consequence of Shiner’s view is that aesthetic evaluation is a critical and open-ended endeavour: We can argue about and revise our reasons for arriving at some particular aesthetic judgement, where, as Korsmeyer points out, “[s]uch reasons are references not to the causes of one’s subjective responses but to standards for judgement that one invokes in the act of aesthetic assessment” (Korsmeyer, 1999, p. 112). Like aesthetic judgements themselves, the general rules appealed to in the justification of a particular aesthetic judgement — such as the general rules that connect properties of pieces of music to dynamic tautness — are also subject to refinement and revision. Shiner doesn’t discuss in detail how these general principles are formulated, but presumably the formulation process can be conceptualised as meta-level criterial justification, that is, the derivation of general principles based on consideration of many individual cases. The actual content of these general principles is ultimately irrelevant for Shiner’s argument, what matters is just the observation that general principles are invoked in the justification of aesthetic judgements. In contrast, Shiner contends that gustatory evaluation has no basis in the kind of reasoned critical discourse that grounds aesthetic evaluation (Shiner, 1996, pp. 240-243). Unlike the activity of criterial

justification, the causes underlying gustatory responses are ultimately governed by the laws of nature.<sup>18</sup> On Shiner's view, my evaluation of a tomato has nothing to do with criteria and reasons. Instead, my evaluation is a purely causal story of my sensory apparatus reacting to the physicochemical makeup of the tomato. It is a different question whether science will ever be able to provide the full causal account of our gustatory responses, but gustatory judgements are not subject to reasoned critical discourse in the way that aesthetic judgements are.

In some ways, Shiner's distinction between gustatory and aesthetic judgements echoes Kant's distinction between the agreeable and the beautiful. The similarities between Kant's and Shiner's views are most pronounced in terms of the respective normative scopes of judgements of the agreeable/gustatory and of judgements of the beautiful/aesthetic. Like judgements of the agreeable, gustatory judgements have limited inter-subjective validity. In contrast, aesthetic judgements, like judgements of the beautiful, can lay claim to inter-subjective validity. However, the difference in normative scope between the two kinds of judgements has a different conceptual basis on Kant's and Shiner's respective accounts.

Kant thinks of both judgements of the agreeable and judgements of the beautiful as ultimately grounded in hedonic responses. These hedonic responses are subjective in the sense that they arise in the person making the judgement (that is, they arise in the subject). But since judgements of the agreeable are tainted, in one way or another, by the influence of desires, they are valid only for the individual making the judgement. In contrast, and in simplified terms, judgements of the beautiful can lay claim to inter-subjective validity as they are grounded in a reflective contemplation of objects that is

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<sup>18</sup> Although Shiner doesn't say this explicitly, I don't take him to be implying that the laws of nature don't also apply in the aesthetic domain. His point is, rather, that references to causal processes do not form the justificatory basis for aesthetic judgements.

free from desires and thus impartial. The claim to inter-subjective validity in turn means that we can engage in some sort of critical discourse regarding the aptness of judgements of the beautiful (although Kant would reject a view of aesthetic judgements as being formed, in the first instance, on the basis of criterial justification rather than subjective experience).

The subjective grounds for both judgements of the beautiful and judgements of the agreeable on Kant's theory indicate a central difference between Kant and Shiner: On Shiner's view, genuinely aesthetic judgements are ultimately grounded in features of objects, not in features of subjective responses. It is a mark of the kinds of non-aesthetic domains that Shiner discusses, including, centrally, the domain of the gustatory, for a judgement to be grounded in features of subjective responses. Specifically, non-aesthetic judgements such as gustatory judgements are grounded in features of sentiments caused by the object being judged. But as with Kantian judgements of the beautiful, aesthetic judgements in Shiner's sense can lay claim to inter-subjective validity on the basis that they can be criterially justified with reference to general rules of aesthetic evaluation. This basis in criterial justification thus enables others to confirm for themselves the aptness of an asserted aesthetic judgement by relating the features of the object to the set of criteria appealed to in the judgement. In contrast, like a Kantian judgement of the agreeable, a gustatory judgement as conceptualised by Shiner has limited inter-subjective validity.

That gustatory judgements as conceptualised by Shiner should have limited inter-subjective validity might seem counterintuitive at first; after all, Shiner thinks of the aptness of gustatory judgements as causally determined and explainable by science. However, while it might be the case that a judgement of a wine as tasting flinty can ultimately be vindicated or disconfirmed by science, Shiner thinks that there is nothing

we can say by way of justification that could convince someone who doesn't taste flintiness in the wine to accept the judgement that the wine tastes flinty. This is what Shiner means when he says that there is "no property of the taste other than its flintiness to which one can point in order to vindicate a claim about its flintiness" (Shiner, 1996, p. 242). If Avery says that the wine tastes flinty but I can't taste the flintiness, then all Avery can point to to vindicate their judgement would be "properties of [their] sentiment" (Shiner, 1996, p. 242). But since I myself can't taste the flintiness, and since I also have no way of independently verifying a claim about what's inside someone else's head, Shiner argues that I have no reason to accept Avery's judgement. A gustatory judgement might in a causal sense be correct or incorrect, and trained tasters might be better than other people at making correct judgements. But in the typical context of a gustatory judgement, such as over dinner, the causal correctness of a gustatory judgement is often all but impossible to ascertain, and even if it could be ascertained, this wouldn't have any purchase on someone's ability to confirm for themselves that the wine does indeed taste flinty.

A further difference between Shiner's and Kant's views is that Shiner doesn't emphasise the role of desires as an essential distinguishing feature between aesthetic and non-aesthetic judgements. Nonetheless, it seems that Shiner's account ultimately ends up in a similar place as Kant as regards the sphere of influence of desires: If a gustatory judgement is a judgement of sentiments arising in individuals, desires might plausibly interfere with the judgement. But if aesthetic judgements are judgements of objects, it's not obvious how desires might interfere with a genuinely aesthetic judgement.

Korsmeyer, I think rightly, rejects Shiner's account of the aptness of gustatory judgements as being determined entirely by causes (Korsmeyer, 1999, pp. 113-117). She

accepts Shiner's general distinction between judgements that are grounded in criterial justification and judgements that are grounded in causal explanation. She further grants that it might well be the case that causes play a relatively greater role in gustatory judgements compared to judgements that are uncontroversially aesthetic. However, she argues that Shiner's account of the justificatory basis of gustatory judgements as entirely grounded in causal explanation is inaccurate. Korsmeyer contends that gustatory judgements do make reference to criteria in much the same way as genuinely aesthetic judgements do, leading her to conclude that gustatory judgements can be aesthetic.

Korsmeyer builds her defence of the aesthetic character of gustatory judgements on the dismantlement of Shiner's notion that food experiences are predominantly "*inwardly directed* experience[s]" (emphasis original; Korsmeyer, 1999, p. 114). She understands the claim that food experiences are inwardly directed experiences to mean that food experiences don't refer to anything other than the subjective experience of the food itself. This limited referential scope of food experiences in turn derives from the ostensible fact that foods "don't seem to be *about* anything other than how things taste" (emphasis original; Korsmeyer, 1999, p. 110), which Korsmeyer restates as the thought that there is no cognitive component to foods and our experiences of them. The apparent lack of a cognitive dimension in food is in stark contrast to many (typically representational) works of art that are clearly about things other than how they present themselves to us perceptually. But if it's the case that foods lack a cognitive dimension, then their aesthetic significance would appear to be locked into the domain of purely sensory experience. Korsmeyer contends that such a non-cognitive construal of food experiences wouldn't be able to muster much of a response to Shiner's objection because sensory experience seems determined predominantly by causes rather than by

critical engagement with criteria. At the core of Korsmeyer's response to Shiner is thus the assertion that food experiences do in fact frequently feature a cognitive dimension. This cognitive dimension makes it possible for gustatory judgements to no longer be judgements of purely causally determined sensory experience, but instead to be judgements related to things in the external world, and for these judgements to be grounded in criterial justification.

Korsmeyer's reconstruction of Shiner's view might strike one as somewhat odd. While Shiner does conceive of gustatory judgements as inwardly directed and thus locked into the domain of purely sensory experience, Shiner's (or, for that matter, Kant's) distinction between aesthetic and non-aesthetic judgements doesn't seem to have anything to do with whether the object being judged has any cognitive content. The activity of forming an aesthetic judgement — for Shiner, by relating the features of an object to a set of criteria; for Kant, by disinterestedly and reflectively contemplating an object — clearly requires cognition about the object. But it doesn't seem to require that the object itself has any cognitive content. I will come back to this point later; for now, I will consider Korsmeyer's argument on her own terms.

Borrowing from Nelson Goodman's cognitivist theory of art (Goodman, 1976), Korsmeyer proposes a range of kinds of cases where foods attain meaning by way of functioning as *symbols* (Korsmeyer, 1999, pp. 115-140). On her view, foods can represent, exemplify, and express. The notion of representation employed by Korsmeyer conceptualises representation as denotation (Korsmeyer, 1999, p. 115). Representation thus construed operates independently of resemblance, which means that for a food to represent something, it doesn't necessarily have to look like the thing it represents. Some representational foods, like gummy bears or Easter eggs, do resemble, but not all representational foods do. If one's theological position is that the bread consumed



during the Christian Eucharist represents the Body of Christ, then the bread represents the Body of Christ simply because it denotes the Body of Christ, unrelated to any concerns regarding resemblance. Nonetheless, most of the representational foods that Korsmeyer discusses (Korsmeyer, 1999, pp. 118-128) feature visually resembling aspects, and she notes that many of the visual representations found in the food domain “appear to have a frivolous, unnecessary quality that makes the food interesting and curious but not necessary [sic] profound or important” (Korsmeyer, 1999, p. 126).

Korsmeyer then turns to how foods can attain meaning through exemplification (Korsmeyer, 1999, pp. 128-129), which she suggests “most clearly [demonstrates] the pervasiveness of the symbolic function of food” (Korsmeyer, 1999, p. 128). On Goodman’s account of exemplification, an object exemplifies a property if it possesses that property and refers to it: “Exemplification is possession plus reference” (Goodman, 1976, p. 53). On Korsmeyer’s application of this account to food, a food thus exemplifies a property if it possesses that property and somehow refers to it.

What it means for a food to refer to a property it possesses isn’t clearly articulated in Korsmeyer’s discussion. She describes a food’s referring to a property as “[calling] attention to some of the properties of what is eaten, presenting them for special notice and assessment or enjoyment through direct experience” (Korsmeyer, 1999, p. 128). Thus not all properties possessed by food are also referred to by the food: “The gourmet does not direct attention to incidental properties that do not represent the aspects of food that demand appreciation. She does not care, for example, about the weight of the sow that discovered the truffles on the plate” (Korsmeyer, 1999, p. 128). The example that Korsmeyer chooses to illustrate the point about incidental properties strikes me as somewhat odd; it doesn’t seem obvious that the weight of the sow counts as any kind of property of the truffles, incidental or otherwise. Something like the

electrical conductivity, or perhaps the price, of the truffles might provide a clearer example of an incidental property of the truffles. In any case, I take Korsmeyer's point to be that because such incidental properties are not referred to by the food, they are not exemplified by the food.

So what are the properties that foods do refer to? Korsmeyer talks about properties that “demand appreciation”; properties that are presented “for special notice and assessment or enjoyment *through direct experience*” (emphasis added; Korsmeyer, 1999, p. 128). I take her to be implying that foods refer to, and consequently exemplify, those flavour and taste properties that are perceptible if one attends to the food with perceptual discernment: “[T]he gourmet exercising a discriminating palate is attending to the properties exemplified in food and drink” (Korsmeyer, 1999, p. 128). Miso soup straightforwardly exemplifies saltiness because it possesses the property of saltiness in such a way that the saltiness is at the forefront of the perceptual experience of eating the soup. But on Korsmeyer's view, a flavour or taste property doesn't have to be prominent for the property to count as being referred to and thus exemplified by the food. It just has to be perceptible<sup>19</sup> when one closely attends to the perceptual experience of eating the food. Chicken soup, for example, might exemplify “[t]he property of (say) a subdued hint of parsnip well cloaked by onion and dill” (Korsmeyer, 1999, pp. 128-129). Thus, foods effectively exemplify all of the perceptible flavour and taste properties they possess<sup>20</sup>, and Korsmeyer's analysis demonstrates that the act of attending to those properties has a cognitive dimension to it as opposed to being a

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<sup>19</sup> A focus on the perceptible flavour properties of food seems to similarly inform Korsmeyer's account of ethical-aesthetic value interaction in food. As discussed in Chapter One, Korsmeyer limits the scope of such interaction to cases where a food's means of production leave a perceptible *trace* in the food.

<sup>20</sup> The following quote provides further evidence that this is indeed how Korsmeyer conceives of the scope of literal exemplification in food: “Attention to exemplified properties is attention directed to the object of perception *via the taste sensations that it is capable of delivering.*” (emphasis added; Korsmeyer, 1999, p. 128)

purely perceptual matter.

Korsmeyer's account of foods as exemplifying their perceptible flavour properties is intended to counter Shiner's characterisation of food experiences as exclusively inwardly directed experiences. If foods exemplify their perceptible flavour properties, then it seems we are no longer merely attending to our subjective experience, but instead to properties of the food: "Attention to exemplified properties is attention directed to the *object* of perception via the taste sensations that it is capable of delivering" (emphasis added; Korsmeyer, 1999, p. 128). Additionally, criterial justification can be relevant in the evaluation of the taste properties exemplified by a given food (Korsmeyer, 1999, p. 116). Suppose that there's a general rule for what properties need to be exemplified by a Winesap apple for a judgement of the apple to be positive. If the apple exemplifies tartness and crispness, the evaluation might be positive. However, "[i]f properties that should be there are missing — if the apple is bland and grainy rather than tart and crisp, for instance — then the judgement is negative on the grounds that properties that should be exemplified by Winesap apples are missing" (Korsmeyer, 1999, p. 116). It thus seems that Shiner's challenge is met. Gustatory judgements can be aesthetic: they can be judgements of the (exemplified) properties and structure of objects, and they can be vindicated by means of criterial justification.

Korsmeyer goes on to discuss a further way in which foods can attain meaning: Foods can be expressive (Korsmeyer, 1999, pp. 129-140). Expressive foods convey meaning in a manner that's structurally similar to exemplification as discussed so far. The difference is that while an exemplified property is one that's literally possessed by the food, an expressive property "is one that applies metaphorically" (Korsmeyer, 1999, p. 132). We might thus say that expressive foods convey meaning through metaphorical

exemplification, whereas the kind of exemplification discussed previously might more accurately be referred to as literal exemplification. Korsmeyer discusses a range of examples of expressive foods (Korsmeyer, 1999, pp. 132-136). The poisoned apple given to Snow White might be thought of as expressing the property “sinister”: The poisoned apple, or apples more generally, don’t literally possess the property of being sinister; the property applies metaphorically. Other examples Korsmeyer discusses include chicken soup, to which expressive properties such as “soothing” or “comforting” might apply, or bread and salt, which in some cultures come to metaphorically express hospitality. She further discusses in detail a range of foods eaten during various religious as well as secular rituals and ceremonies (Korsmeyer, 1999, pp. 136-140). Korsmeyer contends that while literal exemplification is pervasive, the meanings that food can convey through literal exemplification are confined to being about the taste properties of food. She thinks that literal exemplification in the food domain thus tends to amount to a relatively shallow cognitive dimension, at least when compared to the rich cognitive dimension we often find in art. Expressive foods, especially those that feature in ritual and ceremonial contexts, are supposed to partially bridge this gap (Korsmeyer, 1999, pp. 140-145): Korsmeyer suggests that the meanings conveyed by expressive foods can be much more profound than the meanings conveyed through literal exemplification, though she resists the conclusion that food should thus be considered a fine art like music, painting, or sculpture.

Irrespective of whether Korsmeyer is right to claim that the meanings conveyed by expressive foods are more profound compared to the meanings conveyed through literal exemplification, I will not discuss expressive foods in more detail here. The main reason for this is that metaphorical exemplification in food is relatively uncommon. The rituals and ceremonies Korsmeyer discusses, such as Thanksgiving or the Passover

seder, are recurring but not frequent. Korsmeyer notes this herself: “The more profound uses of tastes and foods are in fact relatively infrequent” (Korsmeyer, 1999, p. 136).

This isn’t to diminish the cognitive significance of the meanings that some foods might be able to express, but it makes such foods relatively unrepresentative of the kinds of food experiences that are the focus of this chapter, namely typical everyday food experiences. Further, Korsmeyer’s emphasis on the profundity that can be conveyed by some expressive foods is ultimately motivated by her project of establishing that food can attain a cognitive depth that is comparable to that of some works of art. But the question of the relative cognitive (or aesthetic) significance of food compared to art is also not the focus of this chapter, or of the thesis as a whole.

More generally, we might wonder how committed we should be to Korsmeyer’s cognitivist conception of the aesthetic character of food. If we’re putting aside metaphorical exemplification, then the cognitive dimension of food principally derives from literal exemplification. As we have seen, the scope of the cognitive dimension established through literal exemplification extends across all of the perceptible taste properties a food possesses. Korsmeyer’s analysis of food in terms of literal exemplification thus shows how the familiar perceptual experience of food is cognitively enriched, as it were. But the insight that there is a cognitive component to the perceptual experience of food doesn’t seem to me to be sufficient reason to conceptualise the aesthetic character of food in primarily cognitivist terms. This is because in and of itself, the notion that there’s a cognitive component to the perceptual experience of food doesn’t really amount to anything new. Kant and Telfer might not make the point quite so explicitly, but the Kantian notion of reflective contemplation of an object’s form, as well as Telfer’s notion of aesthetic eating as “eating with attention and discernment” (Telfer, 1996, p. 57) clearly feature a cognitive component. Unlike

Korsmeyer, however, neither Kant nor Telfer unpack this cognitive component as something that's indicative of meanings exemplified by the object under consideration. Sure, there's a cognitive component to recognising a flavour as garlic, but that doesn't commit you to the view that the flavour itself has a cognitive dimension.

Korsmeyer herself acknowledges that rather than establishing anything not previously known about the perceptual experience of food, thinking about food in terms of literal exemplification is helpful to *highlight* the cognitive dimension of the perceptual experience of food. As regards literal exemplification, she notes that “this particular symbolic function, inseparable from the felt qualities of sensation, *recasts in other vocabulary* the most common defence of the aesthetic experience of food, but makes clear that the relish and enjoyment is more than subjective delectation, though it is that as well” (emphasis added; Korsmeyer, 1999, p. 129). Regarding the relevance of food's cognitive dimension in the context of aesthetic evaluation, she further acknowledges that cognitive depth is typically “not a mark of greatness for food *as food*” (emphasis original; Korsmeyer, 1999, p. 142). Instead, such greatness is instead grounded in the perceptual experience of food: “For food to be ‘great’ *as food*, its sensuous exemplified properties [...] need to be especially fine” (emphasis original; Korsmeyer, 1999, pp. 142-143). As explained previously, the reason for Korsmeyer's insistence to develop a cognitivist account of the aesthetic character of food in spite of these observations lies in her motivation to “[show] how foods and artworks share essential features” (Korsmeyer, 1999, p. 136). But given that the issue of the comparison between food and art is not the focus here, it's worth exploring whether Shiner's challenge that gustatory judgements are not aesthetic can still be met without framing our response in terms of the cognitive meanings that foods attain through literal exemplification.

Let's recall Shiner's example of the string quartet and the wine. Shiner claims that the judgement of the string quartet as possessing the quality of dynamic tautness is aesthetic because, first, the judgement is about features of the string quartet itself, and second, the judgement can be justified with reference to a set of criteria that determine what constitutes dynamic tautness in music. In contrast, the judgement of the wine as tasting flinty is non-aesthetic because, first, it is a judgement about features of the experience caused by the wine as opposed to being a judgement about features of the wine itself, and second, vindication of the judgement proceeds through causal explanation, that is, it is a matter of determining what taste perceptions the wine can induce given its physicochemical constitution.

The first thing to point out about this comparison is that it seems faulty. Shiner's characterisation of how vindication proceeds in the respective string quartet and wine cases might be accurate, but the comparison between the cases strikes me as faulty. The judgement of the string quartet as dynamically taut is a complex and evaluative judgement. The judgement of the wine as tasting flinty, in contrast, is a simple and descriptive "judgement". It is more comparable to the (non-aesthetic) judgement that a tone cluster, that is, a number of adjacent semitones played simultaneously, contains the tone C-sharp. It doesn't seem obvious how we might give a criterial justification for the judgement that a tone cluster contains the tone C-sharp. Like Shiner's wine case, and like one of Korsmeyer's examples for causal explanation in the food domain — "For example, 'What is this odd taste?' can be answered in causal terms, such as 'I added asparagus to the soup.'" (Korsmeyer, 1999, p. 112) — it seems more plausible that vindication of the tone cluster judgement would proceed in terms of causal explanation. The judgement is correct if C-sharp was among the keys struck when the tone cluster was played.

A more appropriate comparison would be that between the judgement of the string quartet as dynamically taut and a judgement of wine, or coffee, as balanced. The judgement that a cup of coffee is balanced seems to me no less criterially justified than the judgement that a string quartet is dynamically taut. Just as musicologists formulate general rules that indicate what constitutes dynamic tautness in music, coffee specialists formulate general rules that indicate what constitutes balance in a cup of coffee: it is an “assessment of how well the Flavour, Aftertaste, Acidity, and Body fit together in a synergistic combination” (Specialty Coffee Association, 2003). The judgement also quite obviously refers to properties of the coffee (its flavour, aftertaste, acidity, and body) rather than referring merely to properties of the experience caused by drinking the coffee. It is true that we find out about these properties through experience, but that is no different from finding out about the properties of a live performance of a piece of music through listening (a point that has also been articulated by Smith, 2007, pp. 60-63).

It seems, further, that the latter point, that the judgement refers to the object rather than to the experience, can be made without invoking the notion that foods “mean” their taste properties on the grounds that they exemplify them. An object doesn’t have to be *about* anything for a judgement to be of the object rather than of the experience of the object. Ironically, Shiner’s own example of the string quartet is potentially a case in point here; philosophical opinion differs on what, if anything, so-called absolute pieces of music like string quartets can be about exactly (for discussion of this issue, see Young, 1999; Kivy, 1999; or Levinson, 2006), but the question of meaning in music has no real purchase on our being justified in claiming that a judgement of an absolute piece of music is really a judgement of the piece itself, as opposed to being merely a judgement of the experience caused by the piece.



The judgement that a cup of coffee is balanced thus seems to be an aesthetic judgement: It refers to properties of an object, and it is criterially justified. And rather than being applicable to only a small selection of foods, it seems that such judgements can be formed of pretty much any food item. My positive judgement of a tomato makes reference to properties of the tomato that I relate to a set of criteria of what makes a good tomato: a skin that's thin and taut, an internal texture that's smooth and relatively firm, a flavour that's predominantly sweet with balanced levels of umami and acidity, and so on. Thus, even if we grant Shiner's distinction between criterial, or aesthetic, and causal, or non-aesthetic, judgements, it still seems that food judgements can be, and frequently are, aesthetic. Shiner is mistaken in categorising gustatory judgements as non-aesthetic. Gustatory judgements can be aesthetic: They can refer to properties of objects, and they can be criterially justified.

As a final remark, the notion of "cognitive" employed by Korsmeyer and Goodman is so broad that it raises the more general question of how informative it can be as a criterion of distinguishing between aesthetic and non-aesthetic kinds of experiences. Here is how Goodman describes the scope of the notion: "Under 'cognitive' I include all aspects of knowing and understanding, from perceptual discrimination through pattern recognition and emotive insight to logical inference" (Goodman, 1978, p. 173). While it is certainly informative to point out the various ways in which common perceptual experience has a cognitive dimension to it — indeed, it seems difficult to imagine a perceptual experience that is entirely free from any cognitive component whatsoever — this observation alone doesn't seem to provide much reason to adopt a full-blown cognitivist conception of the aesthetic, as has been noted previously. By Korsmeyer's own admission, the analysis of food as (literally) exemplifying its taste properties has demonstrated the genuinely aesthetic character of

“the particular properties that are savoured and enjoyed in foods, which qualify [...] as the aesthetic experience of taste according even to noncognitivist analyses” (Korsmeyer, 1999, p. 131). Sure, many typical aesthetic experiences feature some sort of cognitive dimension, but it seems that we can make the case that food experiences can be the kinds of experiences that qualify as aesthetic, and that food judgements can be aesthetic judgements if they take the form of being criterially justified judgements of objects, while operating with a plausible conception of the aesthetic that emphasises not cognition and meaning but perception and attention.<sup>21</sup>

Both Telfer and Korsmeyer explicitly discussed the issue of whether, and how, food experiences can be aesthetic. In the remainder of the chapter, I will explore how gustatory experiences fit into two contemporary accounts of the aesthetic that don't explicitly address the question of whether food experiences can be aesthetic. I will first discuss Nanay's broadly Kantian account of aesthetic attention as centrally involved in paradigmatic aesthetic experience, before turning to Walton's broadly non-Kantian account of aesthetic pleasure as a kind of meta-pleasure.

### **Nanay's Account of Aesthetic Attention**

Nanay's approach to philosophical aesthetics is guided by the idea that many of the central issues in aesthetics are best understood as really being issues in the philosophy of perception, and as being distinct from the issues that arise in the philosophy of art (Nanay, 2014). Nanay thinks that aesthetics deals with particular kinds of experiences — namely, aesthetic experiences — that are best made sense of using the conceptual apparatus from the philosophy of perception. In contrast, the philosophy of art deals with questions about art. It might be true that aesthetic experiences are often

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<sup>21</sup> One obvious way to reconcile the ostensible tension between perception and cognition might be to take the view that perception is *cognitively penetrated* (Stokes, 2014). I think this is an empirically plausible and philosophically attractive view, but I will not discuss it further here.

associated with (experiences of) artworks, but it seems that not all experiences of art are necessarily aesthetic experiences (Nanay offers the example of fending off an attacker in a museum using a nearby sculpture as a weapon), and that not all aesthetic experiences are necessarily experiences of art (two classic examples of this are aesthetic experiences of nature, and of everyday objects). Nanay argues that philosophical questions about the concept of the aesthetic should thus be considered more or less independently from philosophical questions about art. While this conceptual detachment of aesthetics from art doesn't in and of itself imply that Nanay's account of aesthetics naturally includes experiences of food, it also doesn't seem to impose any initial conceptual barriers that would need to be overcome in exploring how his aesthetics might apply to food.

Nanay contends that paradigmatic instances of aesthetic experience typically involve a specific way of attending to objects. Nanay refers to this way of attending to objects as *aesthetic attention* (Nanay, 2015). The emphasis on attending to objects in a particular way relates Nanay's account to earlier accounts of aesthetic experience based on the idea that in order to undergo a genuinely aesthetic experience, an observer had to adopt a special attitude towards an object (Stolnitz, 1960). This special attitude has variously been referred to as disinterested (in reference to Kant's original introduction of the concept of disinterestedness), or simply as an *aesthetic attitude*. In 1964, George Dickie mounted an influential rejection of contemporaneous attitude theories (Dickie, 1964). Dickie argued that, ultimately, there's nothing special about the notion of the aesthetic attitude: Philosophers emphasising the need to adopt a special aesthetic attitude towards an object were really just giving a conceptually uninteresting account of paying proper attention to an object. The notion of paying proper attention to an object, in turn, is simply defined as attending to an object, such as a play, on its own

terms and for its own sake, without being distracted by way of attending to unrelated matters such as the auditorium's geometry, one's anxious hope that the actors won't forget their lines, or what's in the diary the next day (this example is based on Dickie, 1964, pp. 58-59). If Dickie is right and adopting an aesthetic attitude towards, say, a bowl of broccoli soup topped with crunchy pieces of garlic and a dollop of sour cream merely amounts to attending to the soup whilst eating it, then the notion of the aesthetic attitude as well as any aesthetic attitude-grounded account of aesthetic experience seem indeed conceptually uninteresting.

The problem with Dickie's argument, however, is that it presupposes a notion of attention whereby attention is always the same kind of thing: We might pay attention to something to a greater or lesser extent at any given point in time, but Dickie does not otherwise distinguish between different ways of attending to things. For him, there's only one type of attention. Nanay argues that this conception of attention is false (Nanay, 2015, pp. 104-105). In developing his account of aesthetic attention, Nanay introduces two key distinctions (Nanay, 2015, pp. 105-107). The first distinction concerns the scope of attention: Attention can be *focused* or *distributed*. For example, when looking at a visual scene, we might intensely focus our attention on just one particular aspect of the scene, such as a person positioned in the centre of the scene, or we might direct our attention in a more distributed manner to the scene as a whole, attending to the person in the centre but also to the cat in the bottom right corner, and to the mountains and sky in the background. The second distinction is between *objects* and *properties*. We might intuitively think of attention as typically being focused or distributed with regards to objects: If a second, different, visual scene contains a number of objects, say, a red ball, a blue chair, and a red light, we might focus our attention on any one of these objects in particular, or our attention might be distributed between

them. But our attention can also be focused or distributed with regards to properties: We might scan the scene and be focused on just one particular property, say, redness, such that we end up attending to the redness of the ball and of the light. In this case, our attention would be distributed with respect to objects but focused with respect to properties. Or, our attention might be distributed across various properties — colour, texture, shape, and so on — while being either focused or distributed with respect to objects. Based on these two distinctions, Nanay formulates four ways in which we can exercise our attention (Nanay, 2015, p. 107):

- (1) Distributed with regards to objects and focused with regards to properties
- (2) Distributed with regards to objects and distributed with regards to properties
- (3) Focused with regards to objects and focused with regards to properties
- (4) Focused with regards to objects and distributed with regards to properties

The situation above where we're scanning a visual scene for redness but otherwise don't further attend to the object(s) that possess the property of redness is an example of (1). An example of (2) would be to just aimlessly let one's attention wander across objects and their properties without focusing on any objects or properties in particular. If we focus our attention on a particular property of a specific object, such as the particular shade of red of the light in the second visual scene discussed above, this would be an example of (3). And lastly, if we focus our attention on a specific object such as the chair from our second visual scene above, but in a manner such that our attention is distributed with regards to the chair's properties — its colour, its proportions, the textures of the materials making up the chair, and so on — then this would be an example of (4).

Nanay argues that it is this last style of attending — attention that is focused with regard to objects but distributed with regard to the properties of that object — that

characterises *aesthetic* attention. Aesthetic experiences are typically experiences of a particular object, whether that object is an artwork, a landscape, or a chair. (The fact that a landscape should count as an object points to an important aspect of the notion of “object” that Nanay employs: Intuitively, it might strike one as odd to refer to an entire landscape as a single object; after all, landscapes tend to be made up of several distinct components like trees, mountains, bodies of water, and so on. The relevant sense of “object” in the context of Nanay’s account, however, is that of a “perceptual object” (Nanay, 2015, p. 108). The idea is that construing an entire landscape as one perceptual object allows for the various components of the landscape to fuse together into a single individuated object of perception. Going forward, I will refer to objects such as landscapes as *complex objects*.)

Given that aesthetic experiences are typically focused with regards to objects, (1) and (2) are excluded as viable candidates for the kind of attention that Nanay thinks is involved in paradigmatic instances of aesthetic experience. Nanay further thinks that what characterises many seemingly aesthetic experiences is that the kind of attention involved in such experiences is *not* the kind of attention that is singularly focused on a particular aspect of an object, as is the case with (3). Instead, Nanay suggests that paradigmatic aesthetic experiences typically involve attending to an object in a holistic manner, that is, in such a way that our attention is evenly distributed across its properties. (In the case of complex objects such as landscapes, Nanay notes that these properties include the “relational properties connecting various parts of the landscape” (2015, p. 108).) If we were fixated on just one aspect of the object, this would prevent us from perceiving the object in the holistic fashion that Nanay thinks is characteristic of aesthetic experience. Thus, to attend aesthetically to a piece of music involves attending not only to the pitch of the lead melody but also to its timbre, rhythm,

dynamics, as well as how the lead melody integrates with other musical elements of the piece such as the various properties of any harmonic or rhythmic accompaniment.

Similarly, to attend aesthetically to a film involves attending to the film's primary plot as expressed through dialogue, acting, and whatever is the focus of any given frame.

But, crucially, aesthetic attention also involves attending to what's going on in the background of a frame, how camera angles and colour grading are used to help tell the story, the sound design, soundtrack, and so on. By way of a non-art example, aesthetically attending to a landscape illuminated by a sunset involves attending to the hue and luminosity of the colours of the sun and the sky, how these colours are reflected in the sea below, almost giving the appearance of the sea having some inherent luminosity, how the colours of other elements of the landscape like rocky cliffs or trees appear shifted from their usual appearance, and so on.

Nanay situates his account of aesthetic attention within a "broadly Kantian" (Nanay, 2015, p. 96) tradition in philosophical aesthetics that emphasises a particular way of engaging with objects as central to aesthetic experience. I will not provide a full-blown account of how Nanay's conception of aesthetic attention relates to Kant's original conception of aesthetic engagement as discussed earlier in this chapter. Instead, I will restrict myself to demonstrating the conceptual affinity between Kant and Nanay by briefly situating Kant's notion of aesthetic engagement within Nanay's four-way distinction between the various kinds of attention.

Put succinctly, Kantian aesthetic engagement is characterised as the disinterested reflective contemplation of an object's perceptual features. The focus is on the perceptual features of an object; thus, it seems fairly clear that Kantian aesthetic engagement is focused rather than distributed with regard to objects. The requirement for the engagement to be disinterested further substantiates the contention that Kantian

aesthetic engagement is focused with regard to objects. Consider what it takes for one's engagement *not* to be disinterested. Pleasures are rendered interested in virtue of a connection to desires: either, in the sense that one takes pleasure in an object satisfying one's desires, or in the sense that the pleasure taken in the object produces desires. But regardless of which of the two relevant connections between pleasure and desire is instantiated in a particular instance of engaging with an object, the involvement of desires is indicative of attention that is no longer focused but distributed with regards to objects. Specifically, one's desires are being attended to as well as the perceptual features of the object. Thus, disinterestedness implies attention that is focused with regard to objects.

The question that remains is whether Kantian aesthetic engagement is focused or distributed with regard to properties. Again, the answer seems fairly clear. Kant conceives of aesthetic engagement with an object as reflectively contemplating the object's form. As discussed earlier in this chapter, the notion of reflectively contemplating an object's form may be understood as the activity of holistically attending to an object's perceptually accessible features and the relations among those features. Thus, Kantian aesthetic engagement is quite obviously distributed with regard to properties. Overall, then, Nanay's conception of aesthetic attention incorporates Kantian aesthetic engagement. It might not be the case that all instances of aesthetic attention as conceived by Nanay meet Kant's richer requirements for aesthetic engagement, but it seems that all instances of Kantian aesthetic engagement are consistent with Nanay's account of aesthetic attention as attention that is focused with regard to objects and distributed with regard to properties.

Nanay himself does not explicitly discuss how his notion of aesthetic attention might apply to food. However, his account is formulated in very general terms, and I see



no reason why it shouldn't apply to gustatory experiences. The perceptual object with regard to which attention is focused in the context of gustatory experience is the food being eaten. This might be a simple object like a tomato, or it might be a complex object like the previously discussed dish of broccoli soup topped with crunchy pieces of garlic and a dollop of sour cream. To attend aesthetically to these food objects would then be to attend to them in a manner that is distributed with regard to properties, that is, to attend to the various nuances of taste, smell, texture, visual appearance, and temperature, as well as to how these aspects integrate into the overall gustatory experience. Attending to food aesthetically thus contrasts with exercising one's attention in a manner that is focused with regards to properties, such as when attending only to a food's sweetness, or its acidity, or its crunch. In the case of the tomato, aesthetic attention might involve attending to the intense redness of the skin, the slightly floral aroma as the tomato enters the mouth, the degree of tautness of the skin, the balance of sweet and umami tastes, the level of acidity, texture of the flesh, and so on. To attend aesthetically to the dish of soup might involve attending to the difference in temperature between the soup and the sour cream, to the contrasts in texture between the slightly granular soup, the smooth sour cream, and the crispy pieces of garlic, to the way in which the flavours of the various constituents of the soup contrast and supplement each other, and to how all of these aspects of the soup integrate holistically into the gustatory experience afforded by the soup.

It should be noted, however, that Nanay does not position his account of aesthetic attention as an account of aesthetic experience. Nanay's claim is more limited: He contends that many paradigmatic cases of aesthetic experience involve attending to an object in a holistic manner, that is, they involve attention that is focused with regard to objects and distributed with regard to properties. Nanay suggests that this kind of

attention — aesthetic attention — might be *necessarily* involved in aesthetic experience, though he stops short of committing to this idea (Nanay, 2015, pp. 110-111). I am sympathetic to the view that aesthetic experience necessarily involves aesthetic attention, but I will not further discuss this issue here. Nanay's view is that paradigmatic cases of aesthetic experience involve aesthetic attention, and I have demonstrated that the notion of aesthetic attention is applicable to food. There seems to be no reason to suppose that food would take a special place in Nanay's account whereby the presumed connection between aesthetic attention and aesthetic experience plays out any differently when considering the case of food. Thus, I take it that to the extent that aesthetic attention is involved in aesthetic experience, the gustatory case does not encounter any conceptual barriers that would undermine the possibility of deriving aesthetic experiences from food.

To conclude the discussion of Nanay's account, I will briefly address the issue of whether aesthetically attending to an object is *sufficient* to undergo an aesthetic experience. Nanay himself does not think that it is (Nanay, 2015, pp. 110-112). I might listen to a piece of music and try as much as I can to aesthetically attend to the piece, yet I might still fail to experience anything that we might call an aesthetic experience. Perhaps the piece of music isn't very interesting, or perhaps I am just very tired. Nanay suggests that his account of aesthetic attention might need to be supplemented with something else to turn it into an account of a way of engaging with an object that is sufficient to establish aesthetic experience (Nanay, 2015, p. 111). Throughout this chapter, we have seen that accounts of aesthetic experience typically emphasise hedonic responses in one way or another. However, Nanay's account of aesthetic attention, considered in and of itself, does not make reference to hedonic responses in any way. Perhaps, then, we might be able to develop an account of aesthetic experience by

connecting Nanay's account of aesthetic attention to the pleasure afforded by the act of aesthetically attending to an object.

If we follow this approach, we might end up with something like Matthen's account of aesthetic pleasure (Matthen, 2017). (Matthen has remarked about his account of aesthetic pleasure that it "dovetails" (Matthen, 2020, p. 318) with Nanay's notion of aesthetic attention.) Roughly put, Matthen's view is that aesthetic experience occurs if aesthetic attention provokes a positive hedonic response. Matthen has in mind a specific kind of positive hedonic response, however; not just any positive hedonic response will do the trick: The idea is that the pleasure afforded by aesthetically attending to the object plays a facilitating role in sustaining our motivation to continue the activity of aesthetically attending to the object (Matthen, 2017, p. 14). Matthen dubs this kind of facilitating pleasure *aesthetic pleasure*.

The experience of such aesthetic pleasure is what is missing from the above example of aesthetically attending to a piece of music yet seemingly failing to derive an aesthetic experience from the engagement. By contrast, if the activity of aesthetically attending to the piece of music affords me aesthetic pleasure in the sense that the experience of this pleasure motivates me to continue the activity of aesthetically attending to the piece, then it would be appropriate to characterise my experience as an aesthetic experience. Like Nanay's account of aesthetic attention, Matthen's account of aesthetic pleasure is formulated in general terms that pose no obvious conceptual obstacles to applying the account to food; indeed Matthen himself has written on how his account of aesthetic pleasure is applicable to food (Matthen, 2021). Consider again our earlier example of the dish of broccoli soup topped with crunchy pieces of garlic and a dollop of sour cream: If I attend aesthetically to the dish, and the activity of aesthetically attending to the dish affords me aesthetic pleasure that sustains my

motivation to continue the activity of aesthetically attending to the dish, then my experience of the dish is aesthetic. Nanay's notion of aesthetic attention, in conjunction with Matthen's notion of aesthetic pleasure, seems to me an appealing account of the mental activity involved in aesthetic experience, as well as of the distinctive kind of pleasure afforded by aesthetic experiences of a diverse range of objects including works of art, natural objects, everyday objects, and food.

### **Walton's Account of Aesthetic Meta-Pleasure**

The last account I will discuss in this chapter is Walton's (1993) account of aesthetic pleasure. Walton thinks that aesthetic pleasure is a kind of meta-pleasure: Aesthetic pleasure is the pleasure we derive from recognising that we take pleasure in admiring something. An object's capacity to elicit such aesthetic pleasure, in turn, is constitutive of the object's aesthetic value. Walton articulates his account in perfectly general terms, though in his discussion he is specifically concerned with the aesthetic pleasure afforded by works of art, and the aesthetic value that is attributable to works of art in virtue of their capacity to afford aesthetic pleasure. In this final section of the current chapter, I will explore how food might fit into Walton's account of aesthetic pleasure and aesthetic value.

Walton considers an artwork's aesthetic value to be a kind of value that is important only from a perspective that is *internal* to the institution of art (Walton, 1993, pp. 500-504). From this internal perspective, an artwork's aesthetic value is something that we consider to be intrinsically valuable. But from a perspective that is external to the institution of art, aesthetic value is a kind of value that might seem arbitrary if not outright pointless, much like the intrinsic value of winning a game of football isn't really appreciable from a perspective that is external to the institution of football. To recognise the intrinsic value of winning a game of football requires one to "buy into"

(Walton, 1993, p. 500) the institution of football; analogously, recognising the intrinsic value of an artwork's aesthetic value requires one to buy into the institution of art. From the perspective internal to the institution of football, we can then judge players, managers or tactics in terms of their aptness to help a team attain the intrinsically valuable goal of winning games of football. In the case of football and other types of games, there is typically a set of explicitly stated rules that govern the attainment of the intrinsically valuable goal of winning. In the domain of art, the analogous "rules" that inform our judgements of the aesthetic value of artworks tend to be of a less explicit kind. In part, these implicit rules are determined by conventions and traditions internal to the institution of art as a whole, as well as by conventions and traditions internal to specific art traditions like music or film. Walton contrasts this "institution-bound" (Walton, 1993, p. 500) character of the aesthetic value of art with the extrinsic or instrumental value that we may attribute to individual works of art (or indeed to the institution of art as a whole) from a perspective that is *external* to the institution of art. For example, such extrinsic or instrumental value might include the value we attribute to a work on the grounds that the work furthers our understanding of moral, psychological, or sociopolitical matters. We may similarly attribute extrinsic value to the institution of football on the grounds that there are benefits to the physical health and teamwork mentality of children who participate in the institution of football. We can recognise the extrinsic value of football or art even if we haven't bought into the respective institutions of football or art, but it is only from a perspective that is internal to these institutions that we ascribe intrinsic value to winning a game of football, or to an artwork's aesthetic value.

If Walton's account of aesthetic value is to apply to food, it seems that we need a notion of some food-related institution internal to which the aesthetic value of food is

considered intrinsically valuable. Let's refer to this institution as the institution of gustatory arts. In the same way that the institution of art entails all artistic traditions and practices from around the world, I take the institution of gustatory arts to entail all gustatory traditions and practices from around the world. Note that the term "gustatory arts" is by no means intended to imply a restriction of the concept of the gustatory arts to include only what some might refer to as the "fine" gustatory arts such as fine dining or haute cuisine. The concept of the gustatory arts is very much inclusive of gustatory traditions and practices such as junk food and fast food alongside Molecular gastronomy and Futurist cuisine, just as the institution of art includes pop music and B-movies alongside classical music and arthouse film. Further, although I will continue to refer to the "institution of gustatory arts" in the subsequent discussion, it is important to point out that we can of course also think of more narrowly defined gustatory and artistic traditions and practices like junk food or pop music as institutions in their own right; the idea is *not* that there is just one all-encompassing institution of art, and just one all-encompassing institution of gustatory arts. We can think of the institution of junk food or the institution of Molecular gastronomy as distinct gustatory institutions in their own right, just as we can think of the institution of pop music or the institution of classical music as distinct artistic institutions in their own right.

For the purposes of the present discussion, I will assume that what counts as a work of art is determined by the relevant artistic traditions and practices<sup>22</sup>, and that, analogously, what counts as a "work" in the context of the gustatory arts is determined by the relevant gustatory traditions and practices. Gustatory works thus construed will most obviously include modified foods like dishes; however, as Bernstein (2020) has argued, even unmodified foods might count as gustatory works if they are embedded in

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<sup>22</sup> For discussion of the so-called institutional theory of art, see Matravers (2000).

an appropriate gustatory setting, such as when an unmodified peach is presented as a dessert. Finally, given that all humans need to eat food to survive, the notion of “buying into” the institution of gustatory arts must consist in something more than simply the act of eating food. Presumably, then, buying into the institution of gustatory arts involves an interest in and engagement with the gustatory traditions and practices that constitute the institution of gustatory arts.

As with the institution of art, there can be external and internal judgements related to the institution of gustatory arts. On the one hand, from a perspective that is external to the institution of gustatory arts, we might value the institution of gustatory arts as a whole for helping to distinguish poisonous from non-poisonous foods; or we might externally value specific gustatory traditions for their benefits to social cohesion; or we might externally judge the nutritional value of individual dishes. On the other hand, from a perspective that is internal to the institution of gustatory arts, we might recognise a dish’s gustatory inventiveness or its creative visual presentation as something that is intrinsically valuable. Note that it seems as though we can value a food’s mere deliciousness from an external perspective, that is, without having bought into the institution of gustatory arts. In contrast, cases like valuing a dish on the grounds that it represents a very good rendition of a traditional dish, or valuing a dish for the way it re-interprets a traditional dish, seem to require one to have bought into, to some extent at least, the institution of gustatory arts.

Having thus introduced the institution-bound character of Walton’s account of aesthetic value, and the institution of gustatory arts as the relevant institution internal to which any potential aesthetic value of food would be considered intrinsically valuable, I will now turn to the notion of aesthetic pleasure that is at the core of Walton’s account of aesthetic value.

Walton contends that the practice of making aesthetic value judgements is an integral part of participating in the institution of art. Crucially, he proposes that the aesthetic value of an artwork is in part constituted by the positive aesthetic evaluation of the work: “[M]y judgement and my admiration are not just responses to the value I recognise; they are partly constitutive of it. [...] It is partly by virtue of eliciting admiration that [a work] is worthy of admiration” (Walton, 1993, p. 504). Walton terms this meta-admiration *appreciation*, and he distinguishes appreciating a work from merely deriving pleasure or enjoyment from one’s experience of a work (Walton, 1993, pp. 504-505). By the same token, we can distinguish appreciating a dish — that is, admiring the dish for eliciting admiration — from merely deriving pleasure from eating the dish, which we might colloquially refer to as finding the dish delicious.

The pleasure that is afforded by appreciating a work is what Walton considers to be *aesthetic pleasure* (Walton, 1993, pp. 505-506). Aesthetic pleasure is thus a kind of meta-pleasure: Walton defines aesthetic pleasure as the pleasure taken in recognising that something is prompting one to admire or positively evaluate that thing; “to be pleased aesthetically is to note something’s value with pleasure” (Walton, 1993, p. 505). Thus, if I take pleasure in admiring a dish for creatively re-interpreting a traditional dish, then it looks like my pleasure is aesthetic.

Aesthetic value, in turn, is closely connected to the aesthetic pleasure we derive from works (Walton, 1993, p. 506). Walton notes that there typically seems to be a sense in which our taking aesthetic pleasure in a work can be more or less appropriate. That is, there seems to be some objective degree to which it is warranted for us to derive aesthetic pleasure from our engagement with a work, although Walton doesn’t provide a detailed account of what this propriety condition amounts to. (Supplementing the notion of aesthetically admiring an artwork or dish with something like the previously



discussed requirement for aesthetic judgements to be criterially justified might do the trick.) The aesthetic value of a work, then, is constituted by the extent to which we are justified to derive aesthetic pleasure from our engagement with the work: “[I]f such [aesthetic] pleasure is properly taken in the work, this constitutes the work’s aesthetic value” (Walton, 1993, p. 506). In the gustatory domain, the aesthetic value of a dish is consequently determined by the extent to which it is warranted to take pleasure in admiring a dish. Consider again the previously discussed example of me taking pleasure in admiring a dish for creatively re-interpreting a traditional dish. If it was for some reason unwarranted for me to admire the dish in this way, perhaps because the dish isn’t really so much of a re-interpretation of the traditional dish as it is a typical instance of the traditional dish, then the aesthetic pleasure I derive from erroneously admiring the dish is irrelevant to the issue of determining the dish’s aesthetic value. But if my admiration is warranted, then my aesthetic pleasure is constitutive of the dish’s aesthetic value.

I take the preceding discussion as having successfully established the general applicability of Walton’s account of aesthetic pleasure and aesthetic value to the case of food. The discussion I have provided should by no means be considered an exhaustive treatment of the conceptual implications of applying Walton’s account to food, but I will not further discuss these implications here. Instead, I will restrict myself to two short remarks by way of situating Walton’s account in relation to the previously discussed accounts of the aesthetic.

First, Walton’s account shares with all the other accounts of the aesthetic discussed in this chapter an emphasis on engaging with objects in a way that is detached from considering the object in terms of its instrumental or practical value. In Walton’s case, this emphasis is articulated in terms of the institution-bound character of aesthetic

pleasure and aesthetic value: Only if one buys into the relevant aesthetic institution does one recognise aesthetic value as something that is intrinsically valuable or experience pleasure that is appropriately characterised as aesthetic.

And second, a consequence of Walton's conception of aesthetic pleasure as a kind of meta-pleasure is that aesthetic pleasure features a significant cognitive component: Aesthetic pleasure involves recognition of the fact that one admires or positively evaluates an object. It seems arguable that the initial step of admiring or positively evaluating an object is already a cognitive act in itself; but it seems indisputable that the meta-step of *recognising* that one admires or positively evaluates an object is a cognitive act that is one step removed from attending to the perceptual features of objects. This is not to suggest that attending to the perceptual features of objects is not itself a cognitive act (presumably it is), or that the other accounts of the aesthetic discussed in this chapter do not also feature a cognitive component. However, Walton's account, like Korsmeyer's, arguably puts a relatively greater emphasis on cognition over perception than do the accounts by Kant, Telfer, or Nanay.

The overarching focus of this chapter was on the question of whether experiences of food can be aesthetic. I approached this question by considering gustatory experiences in the context of a range of historical and contemporary accounts of the aesthetic, and I have demonstrated throughout the chapter that gustatory experiences can indeed be aesthetic. The accounts I discussed were conceptually diverse: While Telfer's and Nanay's accounts can be characterised as broadly Kantian, Walton's account, like Korsmeyer's, is more appropriately characterised as broadly non-Kantian. On Kant's own account of aesthetic engagement, the range of gustatory experiences that qualify as aesthetic was more restricted, though this depended to some extent on which particular interpretation of Kant's aesthetic theory we adopt.

Consideration of the aesthetic status of gustatory experiences in the context of some contemporary accounts of the aesthetic yielded fewer restrictions with respect to the scope of which gustatory experiences can be aesthetic. This does not mean that all gustatory experiences are aesthetic experiences. But the emphasis, shared in one way or another by all accounts discussed in this chapter, on engaging with objects in a particular way as a central characteristic of aesthetic experience means that aesthetic gustatory experiences, as well as aesthetic judgements of gustatory experiences, seem possible in many, if not most, contexts of eating.

The overarching aim of this thesis is to explore whether the ethical status of food affects the aesthetic evaluation of food. Having established in the current chapter that, and how, gustatory experiences can indeed be aesthetic, the next chapter will thus investigate the empirical question of whether the ethical status of food has an impact on what can be considered aesthetic ways of engaging with food.

## **Chapter Five: An Adaptation of the Leeds Food Preference Questionnaire Using Ethical Labelling**

The aim of the research reported in this chapter was to explore whether the ethical status of food has an impact on what might be considered aesthetic ways of engaging with food. The ability to meaningfully address this aim required development of an operationalisation of the construct of aesthetic engagement with food. This operationalisation was developed by way of exploring the connections between, on the one hand, philosophical distinctions regarding aesthetic versus non-aesthetic ways of engaging with food, and, on the other hand, the notion of mindful eating in conjunction with the distinction between Liking and Wanting as distinct components of food reward in the brain.

### **Liking and Wanting as Distinct Components of Food Reward**

*Liking* as a component of food reward refers to the hedonic pleasure derived from the consumption of food (Smith et al., 2011). Enhancements and suppressions of Liking reactions to food are associated with opioid, endocannabinoid, and other specific kinds of stimulations of hedonic hotspots and hedonic coldspots in the brain (Morales & Berridge, 2020). When referring to the specific concept of Liking as a component of food reward, Liking will be capitalised to distinguish it from more casual notions of liking. The relevant sense of *Wanting* (also capitalised) as a component of food reward that is distinct from Liking is *not* wanting in the colloquial sense of conscious desire. Rather, it is Wanting in the sense of incentive salience, that is, an implicit process that operates independently of cognitively desiring something (Anselme & Robinson, 2016). Wanting in the sense of incentive salience amplifies the motivation to seek out a reward by supplementing conscious cognitive processes with a “visceral oomph” (Berridge, 2009, p. pp. 378), while Liking is the conscious hedonic pleasure response to the

reward. This kind of Wanting is predominantly generated by the mesolimbic dopamine system, where it is most prominently associated with the neurotransmitter dopamine as well as with a range of other neurotransmitters such as opioids, glutamate, and GABA (Berridge, 2009; Morales & Berridge, 2020). Wanting is typically activated by cues that have previously been learned to be associated with a reward through Pavlovian reinforcement processes (Smith et al., 2011); this learning aspect has been described as the third component of food reward (Nicola, 2016).

It is important to note that while Liking and Wanting often occur together, they can also dissociate as they are mediated by distinct neural circuits in the brain. This means that Wanting can occur without corresponding Liking and vice versa. In the clinical literature on addiction, there is a consensus emerging that such dissociations between Liking and Wanting play an important role in the development of conditions such as obesity and drug addiction (Morales & Berridge, 2020); on this account, addictive behaviours are caused by a continued Wanting for a reward that persists even if the reward is no longer Liked. But disassociations between Liking and Wanting have also been observed in healthy participants. Finlayson et al. (2008) found that while both Liking and Wanting were generally higher in hungry participants compared to satiated participants, the transition from hungry to satiated state was accompanied by dissociations between Liking and Wanting. They suggest this dissociation to be consistent with sensory-specific satiety (Rolls et al., 1981) insofar as they found that eating a savoury meal was associated with a smaller decrease in Liking for sweet than for savoury foods while Wanting increased for sweet but not for savoury foods.

### **Operationalising the Distinction Between Aesthetic and Non-Aesthetic Ways of Engaging With Food**

Over time, philosophers have put forward various accounts of what it means to

engage with an object aesthetically. One particularly influential account in the literature has been the aesthetic theory of Kant, and in particular Kant's conception of aesthetic engagement as *disinterested* (Kant, 1790/1911). As has been discussed in the previous chapter, Kant distinguishes between "interested" and "disinterested" pleasures, and he argues that a pleasure is only properly aesthetic if it is disinterested, that is, if it is not connected to one's desires. He contrasts this with pleasures that are interested by virtue of being connected to one's desires. Kant's distinction between disinterestedness and interestedness might thus be roughly articulated in terms of a (dis)association between Liking and Wanting. On such an account, disinterestedness could be indicated by Liking without corresponding Wanting.

This is not to suggest that Kant's concept of aesthetic pleasure is exhaustively captured by operationalising it as Liking without Wanting. Disinterestedness is a necessary component of Kantian aesthetic engagement, but the experience of pleasure that is unconnected to desires is not in and of itself sufficient to establish that the pleasure is properly aesthetic in Kant's sense (Vassiliou, 2020). The kind of engagement with an object that Kant thinks of as properly aesthetic is more specific than what is established by the construct of Liking without corresponding Wanting alone. In particular, Kant emphasises that properly aesthetic pleasures are derived from the reflective contemplation of the object's *form*. In the case of food, this kind of reflective contemplation might be understood as holistically attending to the totality of, and relations among, the perceptual qualities of the food. The disinterested and contemplative engagement with an object that Kant thinks of as aesthetic engagement is best thought of as a learned skill; it is something that can be trained and cultivated.

Kant's conception of holistically attending to an object's formal features in a way that is unconnected to desires is part of the reason for the enduring appeal of Kant's

aesthetic theory in the contemporary philosophical aesthetics literature. Several of the conceptions of the aesthetic that were discussed in the previous chapter — in particular, Nanay’s notion of aesthetic attention as attention that is focused with regards to objects and distributed with regards to properties (Nanay, 2015), and Matthen’s account of aesthetic pleasure as Nanay-type aesthetic attention that sustains itself by virtue of experiencing pleasure (Matthen, 2017) — position themselves as contemporary descendants of Kant’s notion of disinterested and holistic attention. Kant’s conception of aesthetic engagement as disinterestedly and holistically attending to an object thus remains a live issue in contemporary aesthetics, which adds to the interdisciplinary relevance of the current research.

However, it doesn’t seem that the kind of holistic engagement with a food’s perceptual qualities described by Kant, Nanay, and others is guaranteed by the occurrence of Liking without corresponding Wanting. There are many ways in which one might experience Liking without Wanting while not attending holistically to the eating experience. Take, for example, someone who derives hedonic pleasure from attending only to a particular aspect of a food, such as its sweetness, or from eating while simultaneously reading the news. These experiences wouldn’t fulfil Kant’s criteria for aesthetic engagement, even if they could in principle be instances of Liking without corresponding Wanting. More generally, Telfer has suggested to “distinguish the person who ‘enjoys his food’ but does not notice what he eats, from the person whose awareness is more vivid — the latter reaction being the only one which is characteristically aesthetic” (Telfer, 1996, p. 44). Thus, the construct of Liking without corresponding Wanting needs to be supplemented with something else in order to appropriately operationalise Kant’s notion of aesthetic engagement.

In the current research, the construct of Liking without corresponding Wanting

was supplemented with the notion of *mindful eating* (Kabat-Zinn, 1990) in order to operationalise Kantian aesthetic engagement. Mindful eating is an established concept in the psychological literature; it is characterised as the learned skill of holistically and non-judgmentally attending to the sensory experience of eating food (Framson et al., 2009). To illustrate the notion of mindful eating, it can be helpful to consider the following prompt which has been given to participants in previous research as an intervention to encourage mindful eating of chocolate:

While you are eating the chocolate, it is very important that you focus your attention on the sensory experience of tasting the chocolate. Focus on the various sensations you experience such as the colour, texture, scent, and flavour while tasting and fill your head with the details of these sensations ... (Arch et al., 2016, p. 25)

The fact that both mindful eating and Kantian aesthetic engagement can be considered learned skills further supported the methodological approach of employing the construct of mindful eating to operationalise the holistic contemplation aspect of Kant's account. For the purposes of the current research, the Mindful Eating Questionnaire (MEQ) was employed to measure a participant's propensity for mindful eating. This approach was chosen over implementing a mindful eating intervention using a prompt such as the one quoted above. There were three reasons for this: First, so as to not bias participants' responses in the behavioural task that was used to measure participants' Liking and Wanting of various food items (detailed below); second, to reduce the informational load on participants given the repetitive nature of said task; and third, using a prompt in a similar spirit to the one quoted above seemed less appropriate given that this task doesn't involve any actual eating of food.

The methodological approach developed for the current research might thus be



summarised as follows. We were interested to explore whether the ethical status of food has differential impacts on aesthetic and non-aesthetic ways of responding to food. The notion of Kantian aesthetic engagement as disinterestedly and holistically attending to an object's perceptual features was introduced to help distinguish aesthetic ways of engaging with food from non-aesthetic ways of engaging with food. Disinterestedness was operationalised as a Liking response without a corresponding Wanting response; Kantian aesthetic pleasure more generally was in turn operationalised as Liking without corresponding Wanting in mindful eaters. Given the exploratory nature of the current research, we did not make specific hypotheses regarding the exact nature of potential disassociations between Liking and Wanting in mindful or non-mindful eaters. One prediction we did make, however, was regarding the ethical concern of participants. Previous research has found the responses of participants high in ethical concern to be more affected by positive ethical information (Bratanova et al., 2015; Laureati et al., 2013); we thus predicted that both Liking and Wanting would be affected by the ethical status of food in participants who self-identify as highly ethical.

### **The Leeds Food Preference Questionnaire**

To measure participants' Liking and Wanting of food items, it was decided to adapt an online version of the Leeds Food Preference Questionnaire (LFPQ). The LFPQ is a behavioural task that measures Explicit Liking, Explicit Wanting, and Implicit Wanting (incentive salience) for food (Oustric et al., 2020). For the Explicit Liking and Wanting measures, participants are presented with individual food images. Each image is presented twice; once to measure Explicit Liking by asking participants to rate the perceived pleasantness of the depicted food item, and once to measure Explicit Wanting by asking participants how much they would like to eat some of the depicted food. To measure Implicit Wanting (incentive salience), participants are presented with pairs of

food images and asked to indicate which food they would most like to eat. The Implicit Wanting measure is then inferred by combining how frequently a participant chooses a particular food item with the participant's reaction time in choosing the food item such that a faster reaction time applies a weighting to the participant's choice to indicate greater Implicit Wanting.

The current research adapted the LFPQ in a way that preserved the methodology to measure all three LFPQ measures (Explicit Liking, Explicit Wanting, and Implicit Wanting). It should be pointed out, however, that the Wanting measure of interest was the Implicit Wanting measure; consequently, Explicit Wanting measures were not analysed beyond computing basic summary and inferential statistics. The rationale for this was that Wanting in the sense of incentive salience is generally considered to be an implicit process, as explained above. Previous research has also found the explicit Liking and Wanting measures to be highly correlated (Finlayson et al., 2008), suggesting that participants tend to conflate their conscious Liking and Wanting of the food items into a single concept as is commonly the case when participants are being asked to rate subjective sensations on several explicit measures (Thorndike, 1920; Finlayson et al., 2008).

The original aim of the LFPQ was to measure food Liking and Wanting for various food categories across satiety states (hungry vs satiated) (Finlayson et al., 2007; Finlayson et al., 2008). In its original design, the LFPQ featured food stimuli that varied along the dimensions fat (low/high) and taste (sweet/savoury), resulting in four food categories: high fat sweet (HFSW), low fat sweet (LFSW), high fat savoury (HFSA), and low fat savoury (LFSA). For the purposes of adapting the LFPQ in line with the aims of the current research, the food stimuli used in the study had to be perceived by participants to vary in terms of their ethical status. A stimuli validation study was thus

conducted to ensure that the current research employed a set of stimuli that were perceived to vary along the dimension of ethical status.

Owing to its original research aims, the LFPQ task is by design sensitive to various properties of the depicted foods (Oustric et al., 2020), such as the food's taste profile (savoury vs sweet) and its macronutrient content (percentage of energy from fat and, to a lesser extent, from protein). Further important aspects are familiarity of participants with the depicted food items as well as presenting participants with foods that are recognised as appropriate to eat at the time of day when the participant is taking part in the study. Lack of familiarity with a food item, or presenting a food item that is considered inappropriate to eat at the time of day when the participant is completing the study, are likely to lead to lower scores for the Explicit Liking and Wanting measures, and to non-selection in the paired trial that the Implicit Wanting scores are derived from.

The food items included in the current research all corresponded to the high fat sweet (HFSW) category of the original LFPQ design. The HFSW category was chosen for two reasons. First, to ensure the ecological validity of the Ethical Status manipulation. This manipulation was based on a Fairtrade/Not Fairtrade labelling regime (detailed in the Method section), and Fairtrade certified sugar is a commonly used ingredient across a wide variety of frequently eaten HFSW foods in the UK. Second, because previous research has found inconsistent results regarding the effect of ethical information on food liking in the case of hedonic foods, which are often HFSW foods. Hedonic foods can be understood as foods that are mainly eaten for pleasure rather than for their nutritional benefit. Positive ethical information is typically associated with greater liking of the food (Hemmerling et al., 2013; Lotz et al., 2013; Sörqvist et al., 2015); this effect has also been reported in hedonic foods such as chocolate (Enax et al., 2015; Lotz et al., 2013). However, several other studies have

found the effect of ethical information on food liking to be absent in the case of hedonic foods. For example, Silva et al. (2017) found no effect of ethical information on participants' liking of chocolate; similarly, Bratanova et al. (2015) found no effect in the case of biscuits. Lee et al. (2013) found no effect in the case of potato crisps, a hedonic high fat savoury food, and they even found the direction of the effect of ethical information on taste liking to be reversed in the case of cookies, such that cookies labelled "regular" were liked more than cookies labelled "organic". These findings could be taken to suggest that participants' responses to hedonic foods are less susceptible to being affected by ethical information, perhaps because the ethically positive labelling is perceived as conflicting with the hedonic "guilty pleasure" character of the food items in question. However, they might also be explained as the level of ethical concern of participants moderating the effect of ethical information on food liking (Bratanova et al., 2015). We thus sought to enhance the validity of the current research by employing a food category which has previously yielded inconsistent results with regards to the effect of ethical information on food liking while also measuring the ethical self-identity of participants, in order to be able to isolate the effect of ethical status on Liking and Wanting.

As previously discussed, Liking and Wanting are furthermore sensitive to the satiety state of participants. Because of the sensitivity of the LFPQ task to these aspects, it was crucial that the current research employed a set of stimuli that made it possible to isolate the effect of ethical status on food Liking and food Wanting. Aside from validating a labelling regime that manipulated the ethical status of food items, the stimuli validation study thus also collected the data required to allow for selection of a set of food stimuli that were well matched with regards to these additional aspects that the LFPQ task is sensitive to. To control for the potentially confounding effects of

satiety state and sensory-specific satiety on the LFPQ measures, participants in the current research were further asked to refrain from eating for at least three hours prior to participating in the study.

### **Stimuli Validation Study**

The food stimuli used in the main study were validated in a study that was conducted in line with published guidance on adapting the LFPQ to different cultural contexts (Oustric et al., 2020). The objectives of this stimuli validation study were to confirm the efficacy of manipulating ethical status using a Fairtrade versus Not Fairtrade labelling regime, and to identify an appropriate set of eight food items to be used in the LFPQ task based on participants' responses to the food items in regards to recognition, consumption frequency, palatability, overall taste profile, fat content, and appropriateness of eating the foods at various times of day. This in turn would make it feasible to recruit a suitable sample of participants for the main LFPQ study who correctly recognised each food item and regularly consumed them, while informing the decision of whether to release the main LFPQ study to participants in the morning, afternoon, or in the evening.

### **Method**

#### ***Participants and Ethics***

Fifty-four participants took part in the study. Four participants failed an attention check and were excluded, thus leaving 50 participants (36 females and 13 males with one participant preferring not to disclose their gender; mean age = 41.0,  $SD = 12.2$ ). Participants were recruited and paid through Prolific, a recruitment platform for online research. Participants were paid £1.29 for completing the study. The stimuli validation study was hosted on Qualtrics, an online survey management platform. To be eligible for participation in the stimuli validation study, participants had to currently live in the

UK, be fluent in English, and not be a dietitian or nutritionist. They also had to follow an omnivore diet and could not have any dietary restrictions. Participants in any previous studies related to this thesis were not eligible for the stimuli validation study. Informed consent was obtained from participants at the beginning of the Qualtrics survey. The research was approved by the research ethics committee of the School of Psychology at the University of Leeds (approval date: 9/5/2022, reference code: PSYC-531).

### ***Stimuli***

Figure 10 shows the food images featured in the stimuli validation study. Food images were selected from the Cross-Cultural Food Image Database (CROCUFID, Toet et al., 2019) to ensure consistency in the presentation of the food items for image parameters like visual size of the item, colour grading, contrast, brightness, viewing angle, shadows, and image background. As far as was possible given the scope of food items featured in the CROCUFID database, food items were matched on overall taste profile and fat content in such a way as to correspond to the high fat sweet (HFSW) category of the original LFPQ design, meaning that food items were selected based on having an overall sweet taste and containing at least 40% of their energy from fat. Food items were further matched as far as possible on their protein content and energy density, being a transformed food item (e.g. chocolate) rather than a natural food item (e.g. coconut), and not containing any obvious branding (e.g. M&M's or Oreos) to avoid eliciting brand effects (Vranešević & Stančec, 2003). The CROCUFID database contains two versions of each food item; these two versions are visually identical except that one version shows the food item placed on a plate whereas the other version does not. Because the images featured in the CROCUFID database generally depict foods in amounts that exceed a typical portion of the respective food (e.g. seven cookies), the

non-plated versions of each food item were used to limit the perception of an implied portion size and associated portion size effects (Peter Herman et al., 2015).

Where possible, the Composition of Foods Integrated Dataset (CoFID, Public Health England, 2021) was consulted to obtain macronutrient content information about each food item; for food items that were not featured in the CoFID database, macronutrient content information was obtained by manually searching the online groceries catalogues of major UK supermarkets (Tesco, Sainsbury's, Asda, Morrisons, Aldi, Waitrose, Ocado) and averaging the macronutrient content information provided on relevant listings. Table 13 contains an overview of the macronutrient content of the food items included in the stimuli validation study.

**Figure 10**

*Overview of Food Images Featured in the Stimuli Validation Study*



**Table 13***Macronutrient Content of Food Items Included in the Stimuli Validation Study*

Food item	% of energy from fat	% of energy from protein	Energy density (kcal/100g)	Source
Chocolate doughnuts	56.0	5.6	413.0	CoFID 2021
Fruit & nut chocolate	42.9	4.4	447.0	CoFID 2021
Cookies	43.6	4.7	440.0	CoFID 2021
Oat biscuits	42.9	5.3	480.0	CoFID 2021
Ice cream cones	44.4	4.8	292.0	CoFID 2021
Jam doughnuts	36.7	6.7	321.0	CoFID 2021
Chocolate muffins	52.4	5.0	436.0	CoFID 2021
Waffles	48.6	5.2	462.0	Averaged from major UK supermarket online catalogues <sup>a</sup>
Stroopwafels	36.7	3.1	449.7	Averaged from major UK supermarket online catalogues <sup>b</sup>
<b>Mean</b>	44.9	5.0	415.6	

<sup>a</sup> Macronutrient information for waffles was obtained by averaging the macronutrient information provided on relevant listings in the online groceries catalogues from Tesco, Sainsbury's, Asda, and Waitrose.

<sup>b</sup> Macronutrient information for stroopwafels was obtained by averaging the macronutrient information provided on relevant listings in the online groceries catalogues from Sainsbury's, Ocado, and Waitrose.

Figure 11 illustrates the labelling regime that was used to manipulate the ethical status of food items. In the Ethical condition, food items were displayed alongside the Fairtrade logo; in the Conventional condition, food items were displayed alongside the struck-through Fairtrade logo. Each composite image of a food item including the Ethical/Conventional labelling had a total size of 1500 x 1360 pixels, with the Fairtrade/Not Fairtrade logo (300 x 360 pixels) in the top left corner of the composite image.



**Figure 11**

*Labelling Regime to Manipulate Ethical Status in the Stimuli Validation Study*



The rationale for using a labelling regime based on the Fairtrade logo was that the Fairtrade logo is well-recognised and makes explicit reference to distinctly ethical concepts as it contains the word “fair”. This is in contrast to a labelling regime based on organic, animal welfare, or other sustainability-related labels which might not be as universally recognised while potentially also activating concepts such as “naturalness” or concerns regarding health and/or food safety, which are less straightforwardly articulable in purely ethical terms.<sup>23</sup>

### ***Procedure***

After they consented to taking part in the study, participants were presented with the Fairtrade label accompanied by the following short vignette outlining the criteria food items have to comply with in order to carry the Fairtrade label:

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<sup>23</sup> An earlier attempt at validating a set of suitable stimuli for the ethical adaptation of the LFPQ task used images of food packaging that were intended to be perceived to vary along the dimensions of Ethical Status (Ethical versus Conventional) and Healthiness (Healthy vs Unhealthy). The rationale for this had been that the LFPQ task had previously been adapted to include Healthiness as one of the dimensions along which food items varied (Peng-Li et al., 2022), and it might be thought that using ethical cues as they appear on images of real food packaging (e.g. Organic or Fairtrade labelling) would have greater real-world relevance than using images of food items by themselves. However, it proved unworkable to obtain a set of stimuli that was robustly demarcated in terms of both the Ethical versus Conventional as well as the Healthy versus Unhealthy dimensions while also ensuring the feasibility of recruiting a sample of participants who were sufficiently familiar with all of the food packaging stimuli featured in the study.

Products that carry the Fairtrade label have been produced in accordance with a **holistic blend of social, environmental, and economic criteria**. Fairtrade certification ensures that workers receive a minimum level of pay, operate in appropriate working conditions, and are protected by a comprehensive set of worker protections and rights. Child labour and forced labour are prohibited. Fairtrade also requires responsible water and waste management as well as adherence to ecologically and agriculturally sustainable practices to preserve biodiversity and soil fertility.

To reduce the amount of information participants had to keep in mind while completing the study, no additional information was provided to participants regarding the meaning of the struck through Fairtrade label. A secondary aim of the stimuli validation study was to find out whether participants would perceive the Non Fairtrade labelled foods as ethically poor on the basis of interpreting the Non Fairtrade labelling as indicating active violations of the Fairtrade criteria, or whether participants would perceive the Non Fairtrade labelled foods as ethically neutral on the basis of interpreting the Non Fairtrade labelling as merely indicating a conventional product that wasn't Fairtrade certified. Either finding would be acceptable for the purposes of developing the ethical adaptation of the LFPQ, as long as the two categories were perceived as sufficiently distinct in their ethical valence while exhibiting a similar degree of dispersion.

Table 14 summarises the study procedure after participants were presented with the information about the Fairtrade label. This procedure was derived from published guidance on adapting the LFPQ to different cultural contexts (Oustric et al., 2020). Participants were shown one food item at a time. Each food item was shown three times in total, twice to gather responses for the ethicalness criterion, and once to gather the

responses for all other criteria. For the ethicalness criterion, food items were presented separately with the Fairtrade and Non Fairtrade labels, respectively. For all other criteria, food items were presented unlabelled.

The wording of the question that was asked in relation to the ethicalness criterion, “How ethically bad or good do you think it would be to eat some of this food?”, was chosen in order to frame the ethicalness dimension in a more personally tangible manner by articulating the question as being about the ethics of consumption rather than the ethics of the object (as would be the case with “How ethically bad or good do you think this food is?”) and thus attributing the ethical dimension to an action as opposed to an object. By situating the ethical dimension in the (imagined) act of eating, the ethical dimension is thus also situated in the same conceptual space as the LFPQ itself, which similarly engages the imaginary act of eating the foods depicted during the LFPQ tasks. Figure 12 illustrates the ethicalness criterion question design.

The presentation order of labelled and unlabelled food items was completely randomised and included two attention checks. The procedure of the attention checks is explained in Appendix B. If a participant failed both attention checks, they were excluded from the study. After they responded to all labelled and unlabelled food items, participants were asked about their gender and age. Participants were then thanked and debriefed.

## **Results and Discussion**

Descriptive statistical analyses were conducted in JASP (version 0.17.1; JASP Team, 2022). Table 15 contains an overview of the results of the stimuli validation study.

**Table 14***Overview of Criteria Surveyed in the Stimuli Validation Study*

Criterion	Stimulus	Question	Response
Ethicalness	Labelled food image (Fairtrade/Not Fairtrade)	How ethically bad or good do you think it would be to eat some of this food?	VAS slider with anchors <i>ethically bad</i> (= 0), <i>ethically good</i> (= 100)
Recognition	Unlabelled food image	Please name the food.	Text entry box
Consumption Frequency	Unlabelled food image	How often do you consume this food?	Likert scale with items <i>never</i> (= 1), <i>once a year</i> , <i>every few months</i> , <i>once a month</i> , <i>once a week</i> , <i>almost every day</i> (= 6)
Palatability	Unlabelled food image	How pleasant does this food typically taste?	VAS slider with anchors <i>not at all pleasant</i> (= 0), <i>extremely pleasant</i> (= 100)
Taste	Unlabelled food image	Is this food more sweet or more savoury?	VAS slider with anchors <i>sweet</i> (= 0), <i>savoury</i> (= 100)
Fat	Unlabelled food image	Is this food low or high in fat?	VAS slider with anchors <i>low in fat</i> (= 0), <i>high in fat</i> (= 100)
Time appropriateness	Unlabelled food image	How appropriate is it to consume this food in the morning/afternoon/evening?	Three separate VAS sliders, each with anchors <i>not at all appropriate</i> (= 0), <i>extremely appropriate</i> (= 100)

*Note.* VAS = visual analogue scale.

**Figure 12**  
*Example of the Stimuli Validation Study Ethicalness Rating Question Design*

0% 100%

UNIVERSITY OF LEEDS

FAIRTRADE

How ethically bad or good do you think it would be to eat some of this food?

Ethically bad Ethically good

It would be...

Powered by Qualtrics

**Table 15***Overview of Results of the Stimuli Validation Study*

Food item	Fairtrade		Ethicalness		Frequency		Palatability		Taste		Fat		Morning		Afternoon		Evening	
	Not Fairtrade																	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Chocolate doughnuts	78.3	18.0	22.7	19.1	2.7	1.2	72.8	23.9	13.6	21.3	85.9	11.5	34.9	27.6	73.4	19.0	70.0	25.9
Fruit & nut chocolate	78.0	21.1	21.9	18.8	3.2	1.6	71.8	27.5	18.7	24.8	80.9	14.3	24.6	22.6	71.7	18.5	78.8	17.1
Cookies	80.3	18.6	26.1	22.6	3.7	1.2	79.8	15.6	17.3	22.5	74.2	14.8	44.5	27.0	73.7	19.4	74.3	21.4
Oat biscuits	82.4	16.7	29.5	25.6	3.8	1.3	73.0	19.7	32.7	27.8	66.7	18.0	53.4	27.4	76.2	17.4	72.3	22.5
Ice cream cones	79.3	18.0	25.2	21.2	3.2	1.3	78.4	18.1	15.8	23.8	77.3	16.8	17.5	18.9	76.6	18.5	75.9	22.8
Jam doughnuts	75.7	17.9	22.8	22.7	2.8	1.0	76.6	23.3	14.5	25.5	86.9	14.6	33.1	26.3	72.7	18.7	69.8	24.0
Chocolate muffins	76.3	21.9	25.2	22.0	2.9	1.2	76.8	20.8	15.0	21.4	82.3	11.4	44.2	26.2	72.5	18.0	70.7	23.5
Waffles	77.5	17.8	24.2	21.5	2.0	0.8	63.1	24.8	25.8	26.6	73.3	17.5	67.3	26.6	65.8	19.4	65.7	24.0
Stroopwafels	80.5	18.5	23.1	21.3	1.8	0.9	65.0	22.7	23.3	27.3	75.8	16.1	54.8	29.1	66.9	20.3	64.8	24.2
<b>Mean</b>	78.7	18.7	24.5	21.7	2.9	1.2	73.0	21.8	19.6	24.6	78.1	15.0	41.6	25.7	72.2	18.8	71.4	22.8

*Note.*  $N = 50$ . All items except Consumption Frequency were rated on visual analogue scales (VAS) ranging between 0 and 100. Scale anchors for the Taste item were *sweet* and *savoury*, with a lower score indicating the perception of a sweeter taste. Scale anchors for the Fat item were *low in fat* and *high in fat*, with a higher score indicating the perception of a higher fat content. Consumption Frequency ratings were on a six-item Likert scale scored 1 (*never*) to 6 (*almost every day*).

The aim of this study had been to validate the efficacy of manipulating the perceived ethicalness of food images using a Fairtrade versus Not Fairtrade labelling regime for the purposes of the ethical adaption of the LFPQ task, and to identify a suitable set of eight food images that were well recognised, consumed frequently, considered palatable, identified as having a sweet overall taste profile, perceived as high in fat, and considered appropriate to eat at the same time of day.

The results of the stimuli validation study suggest that the Fairtrade/Not Fairtrade labelling regime produced clearly distinguished categories for the ethicalness criterion. This was observed across all the comparisons of Fairtrade versus Not Fairtrade labelled versions of the same food item. Ethicalness ratings exhibited very similar degrees of dispersion in both categories, indicating similar levels of between-participant consistency regarding the perceived (un)ethicalness of both the Fairtrade and the Not Fairtrade labelled food items. The data further suggest that participants perceived the Not Fairtrade labelled foods as distinctly ethically bad rather than as ethically neutral. Mean ethicalness ratings were a similar distance from the respective scale anchors for both the Fairtrade and the Not Fairtrade labelled food items, indicating that the extent to which participants perceived Not Fairtrade labelled items as ethically bad was similar to the extent to which participants perceived Fairtrade labelled items as ethically good.

Responses to the consumption frequency, palatability, taste, fat, and time appropriateness criteria were evaluated in line with proposed cut-offs in the literature (Oustric et al., 2020). Mean palatability and fat ratings were  $> 60$  for all food items, suggesting that all food items were considered palatable and perceived to be high in fat. Mean taste ratings were  $< 40$  for all foods, indicating that all food items were correctly recognised as sweet in taste. All food items were further considered appropriate to eat in

the afternoon as well as in the evening as mean time appropriateness ratings were  $> 60$  for all foods for both times of day. This was in contrast to the time appropriateness ratings for the morning, where waffles were the only food item to clear the  $> 60$  mean time appropriateness threshold. Based on these data, it was decided to conduct the main LFPQ study in the afternoon, and to release the study to small batches of participants at a time to increase the degree of control over the time of day at which participants complete the study.

Irrespective of the results of the stimuli validation study, participants in the main LFPQ study would have to pass a brief pre-screening procedure to ensure that they correctly recognised and regularly consumed each food item. Across all of the stimuli validation criteria discussed so far, none of the food items were perceived in a manner that would rule them out from inclusion in the final set of eight food items for the main LFPQ study. This meant that the decision of which food item to exclude from this final set of eight items could be made based on participant responses to the consumption frequency and recognition criteria with a view to maximising the likelihood for participants interested in the LFPQ main study to pass the preceding pre-screening procedure. Out of all the food items, stroopwafels were consumed least frequently. Stroopwafels were also the least well recognised food item based on participants' free-text responses to the recognition criterion. It was thus decided to exclude stroopwafels from the final set of eight food items to be used in the main LFPQ study.

The stimuli validation study included attention checks to ensure data quality, and four participants were excluded for having failed the attention check. Still, given the online setting of the study, it cannot be ruled out that some participants passed the attention check without otherwise paying proper attention to the questions. A potential indicator of poor data quality was that ethicalness ratings of 100 for Fairtrade and 0 for



Not Fairtrade labelled foods were relatively common. However, this was judged not necessarily to be an indicator of poor data quality given that it is plausible that the food items in and of themselves were perceived as ethically neutral by many participants, thus making the Fairtrade/Not Fairtrade labelling, which has clear ethical significance, the sole determinant of the perceived ethicalness of the labelled food items. Another indicator of overall acceptable data quality was that the free-text responses to the recognition criterion showed no signs of lack of attention.

### **Main Study**

The ethical adaptation of the LFPQ main study was conducted following selection of the set of eight food images based on the results of the stimuli validation study.

### **Method**

#### ***Participants and Ethics***

Participants were invited to the main study if they passed a separate brief pre-screening survey. The purpose of the pre-screening process was to obtain a sample of participants for the main study who recognised and regularly ate all of the foods featured in the main study. One hundred and ninety-six participants took part in this pre-screening survey; one participant failed an attention check and was excluded, thus leaving 195 participants. Of these 195 participants, 80 passed the pre-screening and were invited to the main study. The invitation to the main study was taken up by 53 participants. One participant failed an attention check and was excluded, thus leaving 52 participants for the main study (25 females and 27 males; mean age = 38.0,  $SD = 13.1$ ).

The participant recruitment and payment process for both the pre-screening survey and the main study was managed using Prolific, an academic recruitment platform for online studies. Participants were paid £0.55 for their participation in the

pre-screening survey and £4 for their participation in the main study. The pre-screening survey was hosted on Qualtrics, an online survey management platform, whereas the main study was hosted on Gorilla, an online behavioural research platform.

To be eligible for participation in the pre-screening survey, participants had to be at least 18 years of age, currently live in the UK, be fluent in English, not be a dietitian or nutritionist, and follow an omnivore, vegetarian, or pescatarian diet with no additional dietary restrictions due to food allergies or intolerances. The requirement for participants to be based in the UK was set to help ensure consistency within the study sample as regards familiarity and cultural associations with the food stimuli featured in the main study. The requirements regarding dietary preferences and dietary restrictions were derived from the constitution of the foods featured in the main study; only participants whose dietary preferences and/or dietary restrictions were such that they might in principle be willing to eat the foods featured in the main study were eligible.

Two additional eligibility criteria for the pre-screening survey were imposed based on participants' previous participation on the Prolific platform. First, participants were not eligible if they participated in any of the previous studies conducted via Prolific in the context of this thesis. Second, participants had to be active and experienced users of the Prolific platform, which was defined as having taken part in at least 20 studies on Prolific prior to participating in the current research. The latter criterion was imposed in order to help with attrition rates given the effective longitudinal study design where participants would be invited back to the main study on an individual basis if they passed the pre-screening.

Aside from passing the pre-screening process, participation in the main study required use of a desktop or laptop computer running Windows 10 or macOS and using Chrome, Edge, Firefox, or Safari as a browser. This was validated by Gorilla at the

point of a participant's entry into the study. The requirements regarding computer operating system and browser type were based on previous research on the accuracy of reaction times measurements in online studies hosted on Gorilla (Anwyl-Irvine et al., 2021). To control for potential effects of time of day and satiety state on the Liking of and Wanting for the foods featured in the main study, participants were asked to complete the main study in the afternoon, having not eaten anything for at least three hours prior to taking part in the main study. The main study was released to small batches of participants at a time to increase the degree of control over the time of day at which participants completed the study.

Informed consent was obtained from participants on Qualtrics at the beginning of the pre-screening survey, and on Gorilla at the beginning of the main study. The study was approved by the research ethics committee of the School of Psychology at the University of Leeds (approval date: 9/5/2022, reference code: PSYC-531).

### ***Design***

In the pre-screening survey, participants were shown the same food images that were featured in the main LFPQ study but without the Fairtrade/Not Fairtrade labelling regime that was used to manipulate Ethical Status in the main study. Participants were asked to name each food item, and to indicate how frequently they consumed each food item.

The main study employed a one-way within-subject design with Ethical Status as the independent variable. The levels of Ethical Status were Fairtrade (i.e. ethically positive) and Not Fairtrade (control). Dependent variables measured by the LFPQ task were Explicit Liking, Explicit Wanting, and Implicit Wanting. The main study consisted of two sections; participants were guided through the study by instructions that were included in the Gorilla study. The first section contained the LFPQ task, including a

practice mode that preceded the actual LFPQ sub-tasks. The second section contained manipulation checks as well as a range of questionnaire and demographic items.

### ***Pre-Screening Procedure***

After informed consent was obtained, participants were shown the eight food items featured in the main LFPQ study. Food items were displayed without any Fairtrade/Not Fairtrade labelling manipulating Ethical Status. Items were presented one at a time in randomised order, interspersed with two attention checks. For each item, participant responses regarding the recognition and consumption frequency criteria were collected in the same way as in the stimuli validation study (Table 14). The procedure of the attention checks is explained in Appendix B. Participants had to fail both attention checks to be excluded from the study.

At the end of the survey, participants were thanked and told that their responses would be checked to determine whether they had passed the pre-screening. To pass the pre-screening, participants had to recognise each food item and indicate that they frequently consumed all food items. Frequent consumption was generally defined as eating a food item at least every few months; however, to ensure the feasibility of the pre-screening process, it was deemed acceptable if a participant indicated that they ate one of the food items just once a year. The rationale for this was that to the extent that a participant's responses might be affected if they ate one of the food items just once a year, this would equally affect their responses to the Fairtrade and to the Not Fairtrade categories and was thus unlikely to lead to distortions in the results of the LFPQ trials.

Participants who passed the pre-screening were invited to the main study a few days after they had completed the pre-screening.

### ***Overview and Procedure of Adapted LFPQ Tasks***

Section one of the main study contained the adapted LFPQ tasks<sup>24</sup>, including a practice mode to give participants the chance to familiarise themselves with the tasks before completing the actual LFPQ trials.

The LFPQ consists of two sub-tasks: a single trial task and a paired trial task. Table 16 contains an overview of how the LFPQ measures are derived from the single and paired trials. The presentation order of single trial task and paired trial task was randomised across participants.

**Table 16**

*Overview of LFPQ Measures*

Measure	Task	Question	Rating (range)
Explicit Liking	Single trial	How pleasant would it be to taste some of this food now?	VAS with anchors <i>not at all</i> (= 0), <i>extremely</i> (= 100)
Explicit Wanting	Single trial	How much do you want some of this food now?	VAS with anchors <i>not at all</i> (= 0), <i>extremely</i> (= 100)
Implicit Wanting	Paired trial	Which food do you most want to eat now?	Calculation via FWA based on participant's choice and reaction time (no fixed range)

*Note.* VAS = visual analogue scale. FWA = frequency-weighted algorithm.

The stimuli used for both tasks of the LFPQ were the Fairtrade/Not Fairtrade labelled food images selected on the basis of the results of the stimuli validation study as discussed in the previous section. After they completed the practice mode, participants were shown the Fairtrade label alongside the same short vignette with information about the Fairtrade label as had been shown to participants in the stimuli validation study. Even though the Fairtrade/Not Fairtrade labelling regime used in the

<sup>24</sup> The Gorilla-based version of the LFPQ that was adapted for the current research was originally created by Dr Janice Qian Wang (Aarhus University).

stimuli validation study had been successful at manipulating the perceived Ethical Status of food items, the labelling regime was slightly revised for the main LFPQ study. The rationale for this revision was to enhance the visual salience of the distinction between the Fairtrade and the Not Fairtrade labelled images, as well as to counteract the effects of participant fatigue that might arise during the course of the relatively large number of repetitive trials making up the LFPQ tasks. The revised labelling regime was inspired by Linder et al. (2010) and is illustrated in Figure 13. Each composite image of a food item including the Fairtrade/Not Fairtrade labelling had a total size of 750 x 680 pixels, with the Fairtrade/Not Fairtrade logo (150 x 180 pixels) positioned centrally at the top of the composite image, above the food item. Composite images were smaller compared to the stimuli validation study to help prevent delays caused by the loading of images during the LFPQ tasks.

### Figure 13

*Labelling Regime to Manipulate Ethical Status in the LFPQ Main Study*



The single trial task of the LFPQ produced direct measurements of Explicit Liking and Explicit Wanting by presenting participants with individual food images labelled either Fairtrade or Not Fairtrade. Each labelled food item was presented twice, once to record Explicit Liking and once to record Explicit Wanting, thus totalling 32 single trials in total. The presentation order was fully randomised across Explicit Liking and Explicit Wanting trials. A white screen with a fixation cross was displayed for 500 ms between trials to enhance the salience of the Fairtrade/Not Fairtrade labelling, and participants were given the opportunity to take a break after 16 trials. To help distinguish between Explicit Liking and Explicit Wanting trials, Explicit Liking questions were displayed in blue font and Explicit Wanting questions were displayed in red font. Font size was kept consistent between Liking and Wanting questions. Figure 14 contains two screenshots that illustrate an Explicit Liking and an Explicit Wanting trial, respectively.

The paired trial task of the LFPQ produced the data required to compute Implicit Wanting by displaying two food images side by side, each labelled either Fairtrade or Not Fairtrade, and forcing participants to choose one of the two images while covertly recording their reaction time in making this choice. Participants could choose the image displayed on the left hand side by pressing the “f” key on their keyboard, or they could choose the image displayed on the right hand side by pressing the “j” key. This procedure was explained to participants on an instruction screen which was shown before the practice mode and again at the beginning of the LFPQ paired trial task. After the instruction screen, the question “Which food do you most want to eat now?” was displayed for 3500 ms; subsequently, the individual paired trials were displayed one at a time, each preceded by a white screen with a fixation cross that was displayed for 500 ms. All Fairtrade labelled items were paired with all Not Fairtrade labelled items,

resulting in 64 trials in total. The presentation order of these trials was fully randomised; this included randomising the positioning of food items on the left hand side or on the right hand side of the screen for a given pairing of two food items. Participants were given the chance to take a break after 32 trials. Figure 15 contains a screenshot that illustrates a paired trial.

The Implicit Wanting score could then be calculated using a frequency-weighted algorithm (FWA; Oustric et al., 2020):

$$IW_{FT} = \sum_{i=1}^{N_{choice}} \frac{\bar{t}}{t_i} - \sum_{j=1}^{N_{non-choice}} \frac{\bar{t}}{t_j}$$

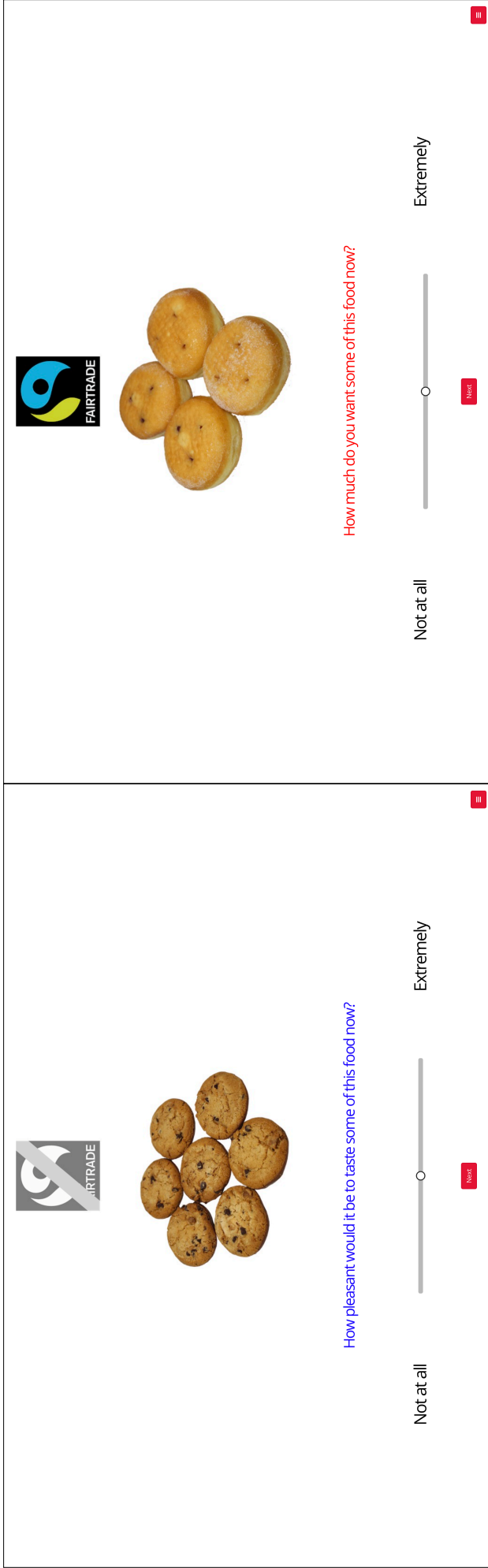
*Note.*  $IW_{FT}$  = participant's Implicit Wanting score for foods in the Fairtrade category.  $N_{choice}$  = number of times the participant chose a food in the Fairtrade category in the paired trial.  $N_{non-choice}$  = number of times the participant didn't choose a food in the Fairtrade category in the paired trial.  $\bar{t}$  = mean of all of the participant's reaction times in the paired trial.  $t_i/t_j$  = participant's reaction time for a particular choice in the paired trial.

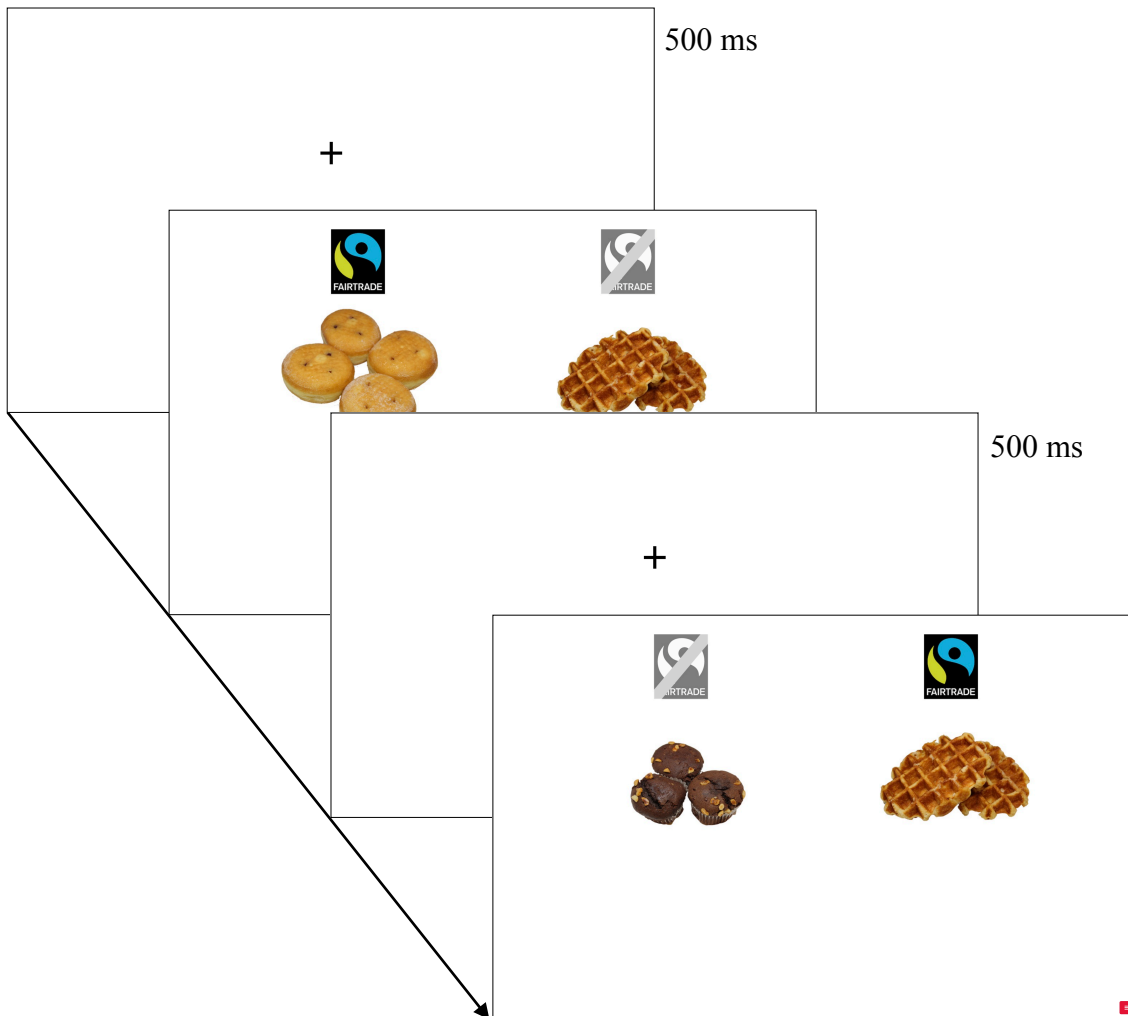
All data analyses involving Implicit Wanting excluded participant responses in Fairtrade versus Not Fairtrade paired trials of the same food product. The rationale for this was that where the Fairtrade version of a product was compared to the Not Fairtrade version of the same product, the two stimuli were exactly identical except for the difference in the Fairtrade labelling, meaning that in these cases the comparison was effectively between the Fairtrade and Not Fairtrade labels in and of themselves rather than being about the food item.



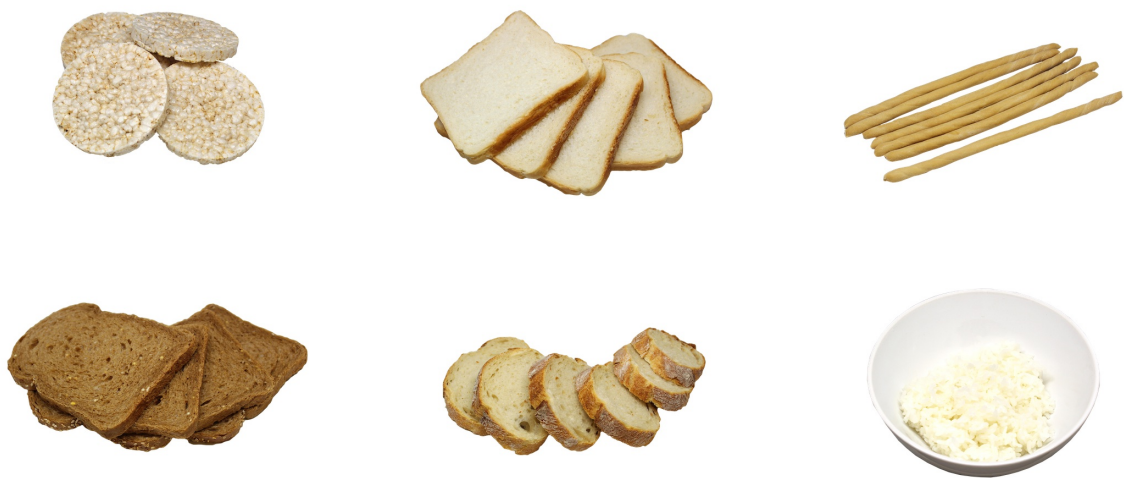
**Figure 14**

*Examples of Explicit Liking and Explicit Wanting Single Trials*



**Figure 15***Illustration of the Paired Trial Procedure*

The practice mode that preceded the actual LFPQ tasks contained a shortened version of both the single trial and the paired trial tasks. Participants had the opportunity to repeat this practice mode as many times as they wanted. The practice mode employed a separate set of food images from the actual LFPQ trials; images for the practice mode were selected from the CROCUFID database (Toet et al., 2019) on the basis of being plain/savoury in taste and low in fat so as to be as neutral and distinct from the stimuli used in the actual LFPQ trials as possible. The images featured in the practice mode are shown in Figure 16.

**Figure 16***Overview of Images Featured in the Practice Mode****Manipulation Check and Questionnaires***

Section two of the main study contained a manipulation check and collected responses to several questionnaire and demographic items.

**Manipulation Check.** For the manipulation check, participants were shown all Fairtrade and Not Fairtrade labelled food images one at a time in randomised order and asked how ethically bad or good they thought it would be to eat some of the depicted food. Responses were recorded in the same way as for the ethicalness criterion in the stimuli validation study. Three items measuring the moral satisfaction (Bratanova et al., 2015) of participants in response to each food image were displayed alongside the manipulation check. The three items were “Consuming this food would make me feel like a better person”, “Consuming this food would feel like making a personal contribution to a good cause”, and “Consuming this food would make me feel like a more environmentally friendly person”. Each item was scored on a 7-point Likert scale with anchors *strongly disagree* and *strongly agree*.

**Mindful Eating Questionnaire.** After the manipulation check, participants completed the Mindful Eating Questionnaire (MEQ; Framson et al., 2009). The MEQ provides a measure of one's propensity to holistically and non-judgementally attend to the sensory experience of eating food (Framson et al., 2009). The complete MEQ is provided in Appendix B. A potential limitation of the MEQ for the purposes of operationalising the holistic contemplation aspect of Kantian aesthetic engagement is that the MEQ contains several items which involve a more inward-oriented component (i.e. being mindful of what one perceives, such as the item "When eating a pleasant meal, I notice if it makes me feel relaxed") rather than being strictly object-oriented (i.e. attending holistically to all aspects of the food, e.g., "Before I eat I take a moment to appreciate the colours and smells of my food"). It might be argued that these more inward-oriented items aren't relevant to the notion of Kantian aesthetic engagement as such engagement is characterised by attention to the object at the exclusion of anything else. In response, it should be pointed out, however, that a certain degree of introspective awareness of one's responses to an object does seem to be involved in the activity of Kantian reflective contemplation; otherwise, it would seem difficult to make judgements about the effects that, say, a piece of music has on a listener.

**Food Choice Questionnaire.** After they responded to the MEQ, participants completed a number of subscales of the Food Choice Questionnaire (FCQ; Steptoe et al., 1995). The FCQ consists of several distinct subscales that measure the importance of various aspects to a participant's typical food choices. All but three subscales of the FCQ were included; the subscales that were excluded were Convenience and Price, which were deemed not relevant to the current research, as well as Mood, which was considered too similar to what was already being measured by the MEQ. In order to obtain a more fine-grained measure of ethical food choice motives, the subscale Ethical

Concern of the original FCQ was expanded and split up into the subscales Environmental Protection and Political Values based on Lindeman & Väänänen's (2000) additions to the FCQ. The four items measuring Political Values were adopted as suggested by Lindeman & Väänänen. For the Environmental Protection subscale, Lindeman & Väänänen suggest three items. Of these three items, the items "Has been prepared in an environmentally friendly way" and "Has been produced in a way which has not shaken the balance of nature" were synthesised into one item, "Has been produced in an environmentally friendly way", to enhance clarity as well as increase relevance to the stimuli used in the LFPQ task. The modified subscale Environmental Protection thus consisted of two items; the second item ("Is packaged in an environmentally friendly way") was left unchanged from how it appears in the original FCQ and in Lindeman & Väänänen. All FCQ items included in the study are provided in Appendix B.

**Ethical Self-Identity Scale.** The final scale participants responded to was the Ethical Self-Identity scale (Michaelidou & Hassan, 2008), which provides a succinct measure of how ethically concerned and how ethical a consumer a participant considers themselves to be. The Ethical Self-Identity scale is provided in Appendix B.

**Attention Checks.** The LFPQ main study contained three attention checks in total. The first attention check was randomly presented at some point during the manipulation check. Two further attention checks were included among the MEQ and FCQ items. All three attention checks are described in more detail in Appendix B. Participants had to fail at least two out of the three attention checks to be excluded from the study.

**Demographic Variables.** After they completed all questionnaire items, participants were asked how many hours ago before participating in the study they last

ate, and to provide some basic demographic information (gender, age, education, household income, dietary preference). Participants were then thanked and debriefed.

**Pilot Testing.** Before the LFPQ main study was released to participants on Prolific, pilot data was gathered from a convenience sample of eleven participants to validate the final design of the study. Participants in the main study pilot test also had the chance to provide feedback (“Do you have any comments/feedback for me about the experience of participating in this experiment that might be useful?”) to make sure that any potentially remaining issues could be addressed before releasing the main study to participants on Prolific. Participants in the pilot test were not required to meet the pre-screening criteria defined for the LFPQ main study.

## Results

Data were processed and analysed in R (version 4.2.2; R Core Team, 2022), using RStudio (version 2023.06.1+524) as well as the packages `psych` (Revelle, 2022), `tidyverse` (Wickham et al., 2019), `lme4` (Bates et al., 2015), `lmerTest` (Kuznetsova et al., 2017), `reshape2` (Wickham, 2007), `ltm` (Rizopoulos, 2006), `ppcor` (Kim, 2015), `rstatix` (Kassambara, 2023), `apaTables` (Stanley, 2021), and `car` (Fox & Weisberg, 2019). Participant characteristics are summarised in Table 17. Participant responses indicated that the instruction to refrain from eating for at least three hours prior to participating in the study was generally abided by.

**Table 17***Participant Characteristics (LFPQ Main Study)*

Characteristic	<i>n</i>	%
Gender		
Female	25	48
Male	27	52
Education		
GCSE/some high school or equivalent	2	4
Vocational education	5	10
A-levels/completed high school or equivalent	10	19
Bachelor's degree	23	44
Master's degree or doctorate	12	23
Income bracket		
Less than £10,000	1	2
£10,000 to £19,999	7	13
£20,000 to £34,999	12	23
£35,000 to £49,999	11	21
£50,000 to £74,999	13	25
£75,000 to £100,000	5	10
More than £100,000	1	2
Would rather not say	2	4
Dietary preference		
Omnivore	48	92
Pescatarian	1	2
Vegetarian	3	6

*Note.*  $N = 52$ . The mean age of participants was 38.0 years ( $SD = 13.1$ ). The average number of hours since participants had last eaten was 4.9 ( $SD = 2.8$ ).

Participant responses to the questionnaires are summarised in Table 18. The questionnaire responses did not reveal any strong tendencies towards the extremes of any of the (sub)scale in the sample. Internal consistency reliability of the individual (sub)scales was generally high, although two respective subscales of the MEQ (External Cues, Distraction) and FCQ (Sensory Appeal, Familiarity) showed only moderate internal consistency reliability. This was judged not to be a concern though, as the MEQ total score showed high internal consistency reliability overall and responses to the FCQ subscales were only collected to provide a descriptive sense of sample characteristics

and were not used in subsequent data analyses.

**Table 18**

*Means, Standard Deviations, and Internal Consistency Reliability of Participant Responses to the Questionnaires*

Questionnaire	Subscale	Possible score range	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$
Mindful Eating Questionnaire (MEQ)	Disinhibition	8 - 32	21.4	5.2	.87
	Awareness	7 - 28	18.7	3.9	.79
	External Cues	6 - 24	16.2	3.1	.66
	Emotional Response	4 - 16	11.6	3.5	.88
	Distraction	3 - 12	9.2	1.7	.58
	MEQ total score	28 - 112	77.1	10.8	.84
Food Choice Questionnaire (FCQ)	Health	6 - 24	16.6	4.5	.92
	Sensory Appeal	4 - 16	12.8	2.2	.64
	Natural Content	3 - 12	6.9	2.7	.90
	Weight Control	3 - 12	5.8	2.1	.81
	Familiarity	3 - 12	6.9	2.0	.68
	Environmental Protection	2 - 8	4.3	1.9	.94
	Political Values	4 - 16	8.0	3.2	.86
Ethical Self-Identity		2 - 14	9.0	2.8	.87

*Note.* *M* and *SD* denote mean and standard deviation, respectively.

Table 19 contains a summary of participant's ethicalness ratings of the individual food items as well as responses to the moral satisfaction measures. The observed pattern of ethicalness ratings suggests that as in the stimuli validation study, the Ethical Status manipulation was successful at inducing perceptions of high and low Ethical Status for the Fairtrade and Not Fairtrade labelled food items, respectively. The Fairtrade labelled food items also scored higher than the Not Fairtrade labelled items in terms of the moral satisfaction that they elicited in participants.



**Table 19**

*Means and Standard Deviations of Ethicalness Ratings and Moral Satisfaction Measures*

Item	Chocolate doughnuts		Fruit & nut chocolate		Cookies		Oat biscuits		Ice cream cones		Jam doughnuts		Chocolate muffins		Waffles	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Ethicalness rating	70.6	19.4	73.4	19.0	73.7	15.8	73.2	16.6	73.1	17.1	72.6	16.6	74.3	16.3	75.5	16.0
Moral satisfaction	Fairtrade															
Better person	4.2	1.4	4.6	1.5	4.6	1.3	4.6	1.1	4.7	1.4	4.5	1.3	4.5	1.3	4.5	1.3
Contribution to good cause	4.9	1.3	5.1	1.3	5.0	1.2	5.0	1.2	5.1	1.1	5.0	1.1	5.0	1.3	4.9	1.2
Environmentally friendly person	4.8	1.3	5.2	1.3	5.0	1.2	5.0	1.2	5.0	1.2	4.9	1.2	4.9	1.2	5.0	1.1
Ethicalness rating	Not Fairtrade															
Moral satisfaction	36.3	20.6	35.7	24.6	38.6	19.2	36.9	18.2	38.3	21.5	37.9	21.1	35.5	19.9	35.9	18.7
Better person	2.9	1.3	3.0	1.4	3.1	1.3	3.0	1.2	3.2	1.3	3.0	1.1	2.9	1.2	3.1	1.0
Contribution to good cause	2.7	1.3	2.7	1.5	2.7	1.3	2.6	1.1	2.7	1.3	2.7	1.2	2.7	1.1	2.8	1.1
Environmentally friendly person	2.6	1.3	2.7	1.4	2.7	1.2	2.8	1.2	2.7	1.3	2.8	1.2	2.6	1.1	2.8	1.1

*Note.* *M* and *SD* denote mean and standard deviation, respectively.

Table 20 contains means, standard errors, and *t*-tests for the Explicit Liking, Explicit Wanting, and Implicit Wanting measures of the LFPQ. Given the nature of the Implicit Wanting measure, Implicit Wanting scores in one category are relative to the other categories. In a research design with two levels of one categorical independent variable such as the current research, this means that Implicit Wanting scores for the Fairtrade and Not Fairtrade categories are by definition the additive inverse of each other.

**Table 20**

*Means, Standard Errors, and t-Tests for Explicit Liking, Explicit Wanting, and Implicit Wanting Measures*

Variable	Fairtrade		Not Fairtrade		<i>df</i>	<i>t</i>	<i>p</i> (Bonf)	Cohen's <i>d</i>
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>				
Explicit Liking	69.65	1.76	64.87	1.96	51	3.44	.004	0.48
Explicit Wanting	65.99	1.82	62.33	1.74	51	2.78	.023	0.39
Implicit Wanting	17.21	2.49	—	—	51	6.92 <sup>a</sup>	<.001	0.96

*Note.* *M* and *SE* denote mean and standard error, respectively. Paired *t*-tests were conducted to compare Fairtrade versus Not Fairtrade responses for the Explicit Liking and Explicit Wanting measures. *p*-values are Bonferroni corrected based on conducting three statistical tests.

<sup>a</sup> Because Implicit Wanting Fairtrade and Not Fairtrade scores are by definition the additive inverse of each other, a one sample *t*-test was carried out to test the Implicit Wanting (Fairtrade) score against the null hypothesis that  $\mu = 0$  (i.e. no difference between Implicit Wanting scores in the Fairtrade and Not Fairtrade categories).

The *t*-test results indicate that the Ethical Status manipulation had a significant effect on all three LFPQ measures, although Cohen's *d* values suggest that the size of this main effect was only moderately large in the cases of Explicit Liking and Explicit Wanting. As noted in the Introduction, the Wanting measure of interest was the Implicit Wanting measure; thus Explicit Wanting data did not feature in subsequent data analyses.

Table 21 contains the bivariate full Pearson correlations between Explicit Liking (Fairtrade), Explicit Liking (Not Fairtrade), Implicit Wanting (Fairtrade), MEQ (total score), and Ethical Self-Identity scores. Implicit Wanting strongly and significantly correlated with Ethical Self-Identity but not with mindful eating. Given the strong and significant correlation between Explicit Liking (Fairtrade) and Explicit Liking (Not Fairtrade) scores, it was decided to re-test correlations involving Explicit Liking (Fairtrade) as partial correlations in order to control for Explicit Liking (Not Fairtrade). Conceptually, this controlled for a participant's overall basic liking of all the food items taken together. Explicit Liking scores were in effect the sum of a participant's basic liking for a food item plus the effects due to the Fairtrade labelling. Another way to think about this is that the Fairtrade labelling modified a participant's basic liking of the food items. The effect of the Fairtrade labelling on Explicit Liking could thus be isolated by controlling for a participant's overall basic liking of all the food items taken together. Unlike Explicit Liking, which is an absolute rating by participants of the food items, Implicit Wanting is a relative measure and thus inherently controlled for this overall basic liking: A participant's overall basic liking of the food items affected their Fairtrade and Not Fairtrade Implicit Wanting scores in the same way, so there was no need to control for it. The results from the partial correlations are shown in Table 22; the partial correlations revealed strong and significant correlations between Explicit Liking

and Implicit Wanting for Fairtrade labelled products, as well as between Explicit Liking and Ethical Self-Identity.

**Table 21**

*Means, Standard Deviations, and Pearson Correlations with Confidence Intervals*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. Explicit Liking: Fairtrade	69.65	12.71				
2. Explicit Liking: Not Fairtrade	64.87	14.12	.72*** [.56, .83]			
3. Implicit Wanting: Fairtrade	17.21	17.93	0.09 [-.19, .35]	-.31* [-.54, -.04]		
4. Mindful Eating (total score)	77.13	10.84	0.03 [-.25, .30]	-0.22 [-.46, .06]	0.04 [-.23, .31]	
5. Ethical Self-Identity	8.96	2.84	0.23 [-.04, .48]	-0.15 [-.40, .13]	.46*** [.22, .65]	0.17 [-.11, .42]

*Note.* *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. The confidence interval is a plausible range of population correlations that could have caused the sample correlation (Cumming, 2014). \* indicates  $p < .05$ . \*\* indicates  $p < .01$ . \*\*\* indicates  $p < .001$ .

**Table 22**

*Pearson Partial Correlation Coefficients*

Variable	Control variable	Explicit Liking: FT	<i>p</i>
Implicit Wanting: FT	Explicit Liking: NFT	.48	<.001
Mindful Eating (total score)		.28	.051
Ethical Self-Identity		.50	<.001

Linear regression modelling was conducted to test the relationships between Explicit Liking/Implicit Wanting, mindful eating, and Ethical Self-Identity, taking into account the Ethical Status of food items. Separate models were constructed to predict Explicit Liking and Implicit Wanting. For Explicit Liking, two models were constructed. The first model investigated the relationship between Explicit Liking, Ethical Status, and MEQ scores, and the second model investigated the relationship between Explicit Liking, Ethical Status, and Ethical Self-Identity. The same approach was taken for Implicit Wanting, resulting in four models.

Mixed-effects linear regression modelling was conducted to predict Explicit Liking scores. A base model was constructed containing the random effect of participant and the fixed main effect of Ethical Status to predict Explicit Liking; this base model was effectively a replication of the paired *t*-test comparing Explicit Liking responses in the Fairtrade and Not Fairtrade conditions previously reported in Table 20. To test the relationship between Explicit Liking, Ethical Status, and mindful eating, the interaction between MEQ total scores and Ethical Status was then added to this base model as a fixed effect; this model is reported in Table 23 and Figure 17. To test the relationship between Explicit Liking, Ethical Status, and Ethical Self-Identity, the interaction between Ethical Self-Identity and Ethical Status was added to the base model as a fixed effect; this model is reported in Table 24 and Figure 18.

As explained previously, Implicit Wanting scores for Fairtrade and Not Fairtrade labelled foods are by definition the additive inverse of each other. This means that there was effectively only one data point per participant; hence, mixed-effects linear regression was inappropriate to model Implicit Wanting scores. Linear regression modelling was thus conducted to predict Implicit Wanting scores for Fairtrade labelled food items. To test whether there was an effect of mindful eating on Implicit Wanting

scores, MEQ total scores were entered into a first model as a main effect. This model is reported in Table 25 and Figure 19. To test whether there was an effect of Ethical Self-Identity on Implicit Wanting scores, Ethical Self-Identity scores were entered into a second model as a main effect; this model is reported in Table 26 and Figure 20.

**Table 23**

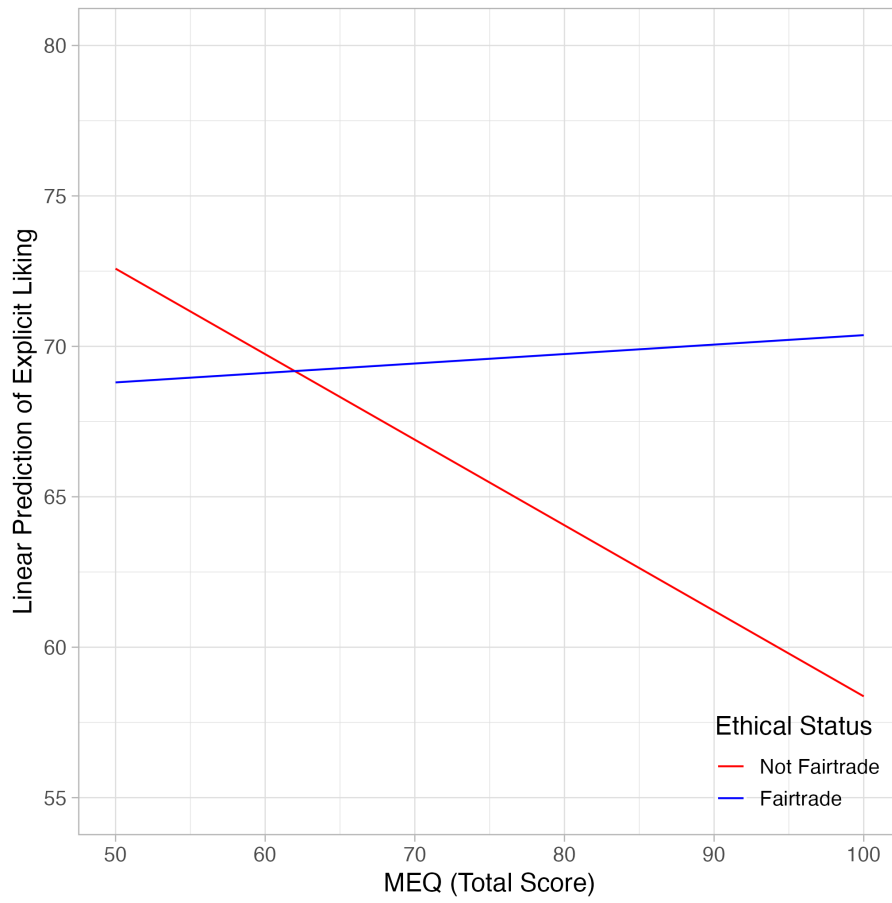
*Summary of Mixed-Effects Linear Regression Model of the Relationship Between Explicit Liking, Ethical Status, and Mindful Eating*

Random effects	Variance	SD				
Participant (Intercept)	133.71	11.56				
Residual	45.37	6.74				
Fixed effects	Estimate	SE	df	t	p	
(Intercept)	86.80	13.46	64.21	6.45	<.001	***
Ethical Status: Fairtrade	-19.57	9.58	50.00	-2.04	.046	*
MEQ (total score)	-0.28	0.17	64.21	-1.65	.10	
Ethical Status: Fairtrade x MEQ (total score)	0.32	0.12	50.00	2.57	.013	*

*Note.* *SD* and *SE* are used to represent standard deviation and standard error, respectively. As MEQ scores increased, participants expressed greater Liking for the Fairtrade labelled foods compared to the Not Fairtrade labelled foods. Nevertheless, the coefficient estimate for Ethical Status — reported in this table as the comparison between Fairtrade and the reference level, Not Fairtrade — was negative; this is a consequence of the fact that MEQ scores were relatively large values (mean MEQ score was 77.1, as reported in Table 18). \*\*\* $p < .001$ ; \* $p < .05$ .  $N = 52$ .

**Figure 17**

*Explicit Liking: Interaction Between MEQ (Total Score) and Ethical Status*



**Table 24**

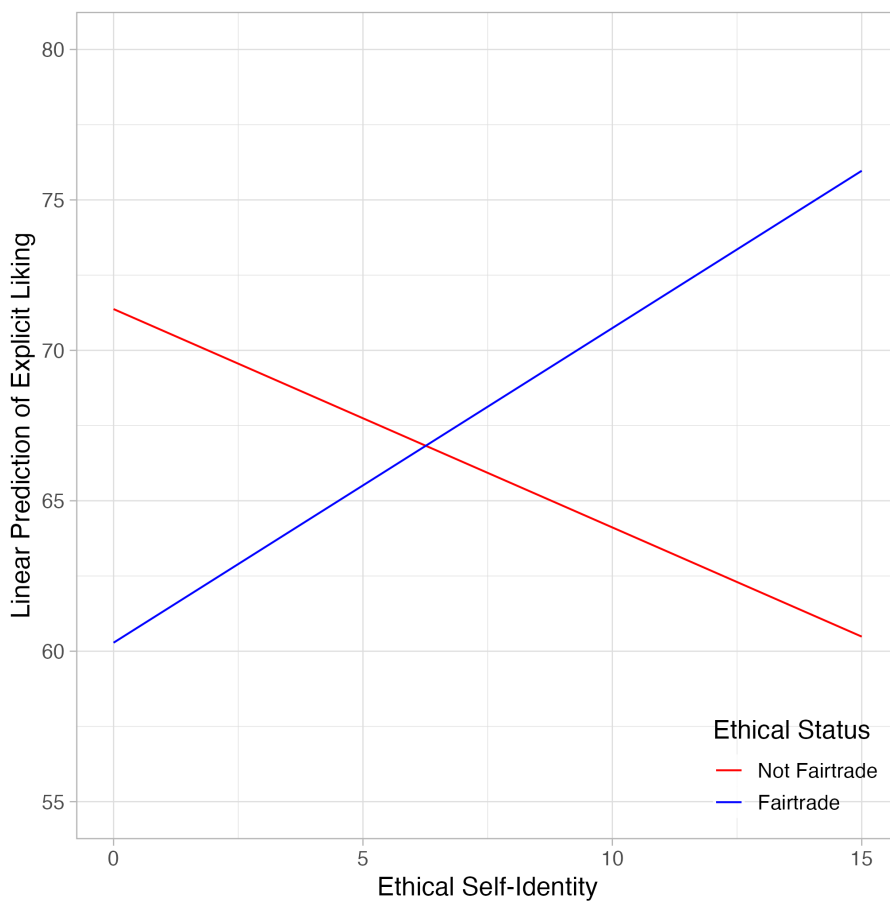
*Summary of Mixed-Effects Linear Regression Model of the Relationship Between Explicit Liking, Ethical Status, and Ethical Self-Identity*

Random effects	Variance	SD				
Participant (Intercept)	138.86	11.78				
Residual	38.48	6.20				
Fixed effects	Estimate	SE	df	t	p	
(Intercept)	71.37	6.18	61.99	11.56	<.001	***
Ethical Status: Fairtrade	-11.09	4.07	50.00	-2.73	.009	**
Ethical Self-Identity score	-0.73	0.66	61.99	-1.10	.27	
Ethical Status: Fairtrade x Ethical Self-Identity score	1.77	0.43	50.00	4.09	<.001	***

*Note.* *SD* and *SE* are used to represent standard deviation and standard error, respectively. \*\*\* $p < .001$ ; \*\* $p < .01$ .  $N = 52$ .

**Figure 18**

*Explicit Liking: Interaction Between Ethical Self-Identity and Ethical Status*





**Table 25**

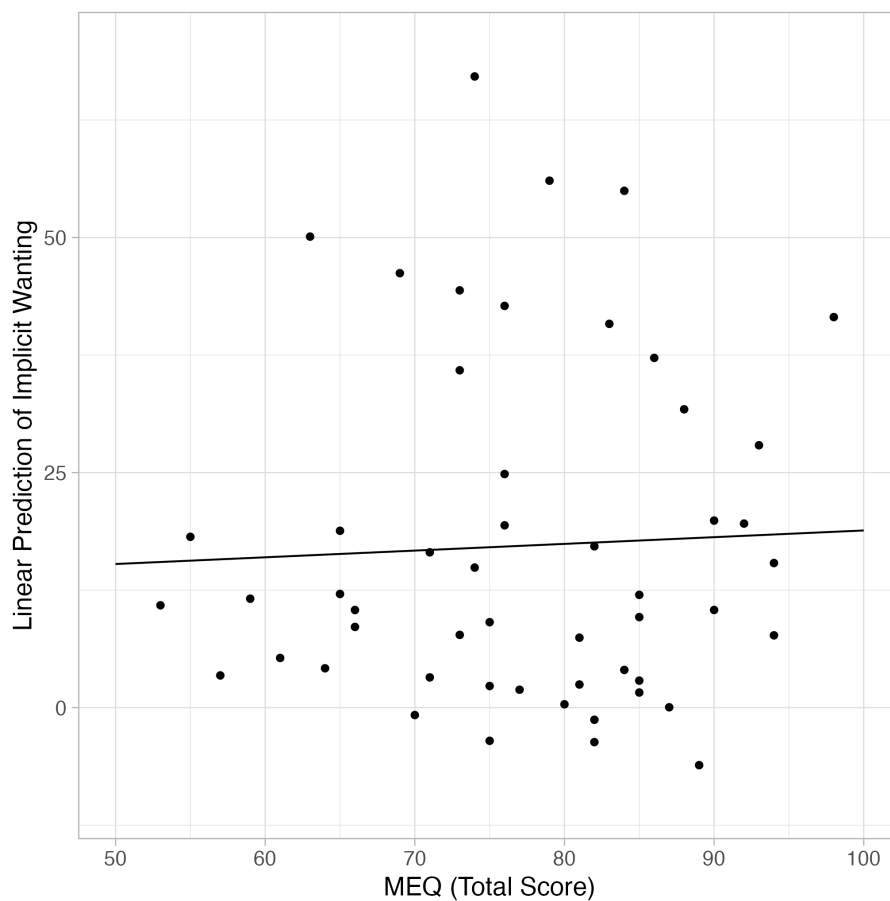
*Summary of Linear Regression Model of the Relationship Between Implicit Wanting for Fairtrade Labelled Foods and Mindful Eating*

Predictor	Estimate	SE	<i>t</i>	<i>p</i>
(Intercept)	11.71	18.20	0.64	.52
MEQ (total score)	0.07	0.23	0.31	.76

*Note.* SE is used to represent standard error. *N* = 52.

**Figure 19**

*Implicit Wanting for Fairtrade Labelled Foods Versus MEQ (Total Score)*



**Table 26**

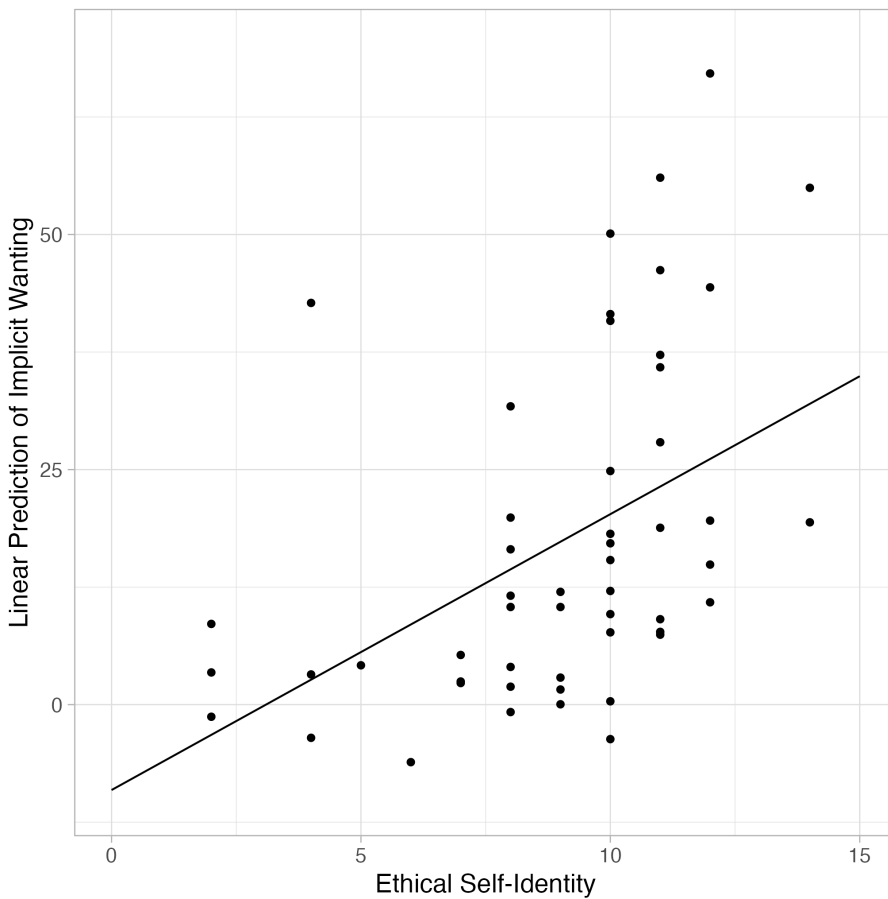
*Summary of Linear Regression Model of the Relationship Between Implicit Wanting for Fairtrade Labelled Foods and Ethical Self-Identity*

Predictor	Estimate	SE	<i>t</i>	<i>p</i>
(Intercept)	-9.08	7.44	-1.22	.23
Ethical Self-Identity score	2.93	0.79	3.70	<.001 ***

*Note.* SE is used to represent standard error. \*\*\**p* < .001. *N* = 52.

**Figure 20**

*Implicit Wanting for Fairtrade Labelled Foods Versus Ethical Self-Identity*



The results of the regression analyses suggest that there were disassociations between Liking and Wanting depending on a participant's propensity for mindful eating and depending on their Ethical Self-Identity. This was consistent with the pattern of effects indicated by the correlation analyses reported previously. As seen in Table 23, there was a significant interaction between mindful eating and Ethical Status in predicting Explicit Liking: For participants with low MEQ scores, there was little difference in their Liking of the Fairtrade and Not Fairtrade labelled foods. However, as MEQ scores increased, the effect of Ethical Status on Explicit Liking became stronger, with participants expressing greater Liking for the Fairtrade labelled foods compared to the Not Fairtrade labelled foods (Figure 17). In contrast, there was no effect of MEQ scores on Implicit Wanting (Table 25 and Figure 19). Liking and Wanting thus dissociated in relation to a participant's propensity for mindful eating.

The interaction between Ethical Self-Identity and Ethical Status in predicting Explicit Liking was also significant: Participants with low Ethical Self-Identity liked the Not Fairtrade labelled foods more than the Fairtrade labelled foods. This trend was reversed as Ethical Self-Identity increased, such that participants who scored high in Ethical Self-Identity liked the Fairtrade labelled foods more than the Not Fairtrade labelled foods (Table 24 and Figure 18). There was further a significant effect of Ethical Self-Identity on Implicit Wanting (Table 26 and Figure 20); as a participant's Ethical Self-Identity increased, so did their Implicit Wanting for the Fairtrade labelled products. Liking and Wanting thus did not dissociate in relation to a participant's Ethical Self-Identity.

Two additional analyses were conducted to further corroborate these findings. First, given the significant interaction of Ethical Self-Identity x Ethical Status in predicting Explicit Liking, it was tested whether the MEQ x Ethical Status interaction

was still significant after first controlling for the interaction of Ethical Self-Identity x Ethical Status. This was indeed the case; there was no change to the significance level of the MEQ x Ethical Status interaction in predicting Explicit Liking if it was entered into the model subsequent to the Ethical Self-Identity x Ethical Status interaction.

Second, given that no explanation had been given to participants about the exact meaning of the Not Fairtrade label used as the control condition, Figure 17 could be taken to imply that the interaction between mindful eating and Ethical Status in predicting Explicit Liking is merely the result of different interpretations of the Not Fairtrade labelling based on a participant's MEQ score. This is because the Liking expressed for the Not Fairtrade labelled foods differed depending on a participant's MEQ score, while the Liking expressed for the Fairtrade labelled foods was similar across the range of MEQ scores observed in the sample. To determine whether participants' interpretation of the Not Fairtrade labelling differed based on their mindful eating scores, Pearson correlations were run between MEQ total scores and (1) averaged ethicalness rating responses to the Fairtrade labelled food items, (2) averaged ethicalness rating responses to the Not Fairtrade labelled food items, (3) averaged moral satisfaction responses to the Fairtrade labelled food items, and (4) averaged moral satisfaction responses to the Not Fairtrade labelled food items. However, none of these four correlations were significant. It was thus deemed unlikely that the interaction between MEQ and Ethical Status in predicting Explicit Liking was merely the result of different interpretations of the Not Fairtrade labelling based on a participant's MEQ score.

## **Discussion**

The aim of the current research was to explore whether the ethical status of food has an impact on what might be considered aesthetic ways of engaging with food. The

ethical status of food was manipulated using a Fairtrade (i.e. ethically positive)/Not Fairtrade (control) labelling regime. Aesthetic ways of engaging with food were distinguished from non-aesthetic ways of engaging with food in terms of Kant's conception of aesthetic engagement: Kant thinks of aesthetic engagement as disinterestedly and holistically attending to an object's perceptual features. Disinterestedness was operationalised as a Liking response without a corresponding Wanting response; Kantian aesthetic pleasure was in turn operationalised as Liking without corresponding Wanting in mindful eaters.

The results show that there were disassociations between Liking and Wanting depending on a participant's propensity for mindful eating and depending on their Ethical Self-Identity. As a participant's propensity for mindful eating increased, ethically positive food labelling increased Liking relative to the control condition but there was no change to the effect of the ethical labelling on Wanting. In contrast, as a participant's Ethical Self-Identity increased, so did their Liking and Wanting for the ethically labelled foods, to the extent that participants with low Ethical Self-Identity even Liked the Not Fairtrade labelled foods more than the Fairtrade labelled foods.

The observed pattern of effects could be interpreted as evidence that the ethical status of food had an effect on aesthetic, that is, holistic and disinterested, ways of engaging with food: Ethical Status had a greater effect on Liking as a participant's propensity to engage holistically with food increased, but there was no associated effect of Ethical Status on Wanting. In contrast, the lack of an effect of Ethical Status on Liking in participants with a low propensity to engage holistically with food could be interpreted as indicating that there was no effect of Ethical Status on non-aesthetic engagement.

The apparent absence of a relationship between a participant's mindful eating

score and their Wanting for the Fairtrade labelled products suggests that a mindful eating intervention would have no effect on the Wanting for products that are labelled Fairtrade. This hypothesis could be tested in a follow-up study: In a between-groups design, one group would be exposed to a mindful eating intervention at the beginning of the study. This intervention would consist in a prompt regarding how to mindfully attend to the (imagined) experience of eating (Arch et al., 2016). The control group would not be exposed to this mindful eating manipulation. A potential concern with such a design is that the mindful eating intervention can only have as its target the imagined as opposed to actual experience of eating food; for this reason, the current study opted to employ the Mindful Eating Questionnaire as a measure of a participant's propensity for mindful eating.

There is a potential objection to the interpretation of the results as indicating that the ethical status of food had an effect on aesthetic ways of engaging with food. Specifically, the objection would be to point out that while variations in propensity to mindful eating had no impact on Wanting, there was a main effect of the ethical labelling on Wanting whereby the Fairtrade labelled foods were generally wanted more than their Not Fairtrade labelled counterparts. Thus, it might seem inappropriate to claim that the results suggest that no Wanting was produced in mindful eaters, which would in turn undermine the assertion that there was an effect on Liking without a corresponding effect on Wanting in mindful eaters.

However, this objection fails to take into account the implications of the effect of Ethical Self-Identity on Liking and Wanting. Ethical Self-Identity had a significant effect on both Liking and Wanting; as participants' Ethical Self-Identity increased, so did their Liking and Wanting of the Fairtrade labelled food items. The reverse was the case for the Not Fairtrade labelled food items; meaning that as Ethical Self-Identity

decreased, Liking and Wanting for Not Fairtrade labelled foods increased. The observed main effect of Ethical Status on Wanting could thus be explained as an effect due to participants' ethical concern. Plausible causal pathways for such an effect could be that as a participant's Ethical Self-Identity increases, so does their susceptibility to social desirability bias and cognitive dissonance in relation to ethical matters, that is, they might be inclined to behave in ways that are perceived as socially "correct" (social desirability bias; Fisher, 1993) and that reduce mental conflicts with their attitudes and beliefs (cognitive dissonance; Festinger, 1957). However, the pattern of effects of Ethical Status on Liking and Wanting due to mindful eating seems to operate independently of any effects due to Ethical Self-Identity. This conclusion is supported by the fact that the effects due to mindful eating are unchanged even if first controlling for the effect of Ethical Self-Identity, which in turn substantiates the interpretation that the results of the current study suggest that there was an effect on Liking without a corresponding effect on Wanting in mindful eaters.

Further, it needs to be pointed out that the observation of co-occurring Liking and Wanting is not in and of itself sufficient to establish the absence of disinterestedness. Co-occurrence of Liking and Wanting is a necessary feature of non-disinterested, or interested, engagement, but it is not sufficient to conclusively establish interested engagement. This is because interestedness requires a causal relation between hedonic pleasure and desire. In the context of the current research, this means that it would need to be established that the observed Wanting is causally grounded in the experience of Liking, or that the observed Liking is causally grounded in the satisfaction of a Wanting. Only then would it be justified to conclude that the observed Wanting is indicative of interested engagement with the food items. But since the data produced in the current research do not permit an inference about the causal relation

between the observed Wanting and the observed Liking, it cannot be conclusively established that the observed Wanting is indicative of interestedness.

Still, a conservative interpretation of the results might be that the Ethical Status of food does not affect strictly Kantian engagement with food given the observation of a main effect of Ethical Status on Wanting. But as has been demonstrated in the previous chapter, contemporary accounts of aesthetic experience put much less emphasis on the engagement with the aesthetic object not giving rise to any desires. Matthen's account of aesthetic pleasure (Matthen, 2017) arguably even reverses the role of desire production as being constitutively involved in aesthetic pleasure: Matthen thinks that aesthetic pleasure occurs if the pleasurable act of aesthetically (that is, holistically) attending to an object sustains itself, motivated by the experience of pleasure. Applied to the current research, aesthetic pleasure as conceived by Matthen could thus be thought of as mindful eating giving rise to Liking, which in turn gives rise to a Wanting to keep up the activity of mindful eating. Thus, if the results are considered through the lens of Matthen's account of aesthetic pleasure, the observed main effect of Ethical Status on Wanting could be taken as potentially even supporting the view that the Ethical Status of food affects aesthetic engagement. It should be noted, however, that the current results by themselves seem insufficient to actually accept such a conclusion. This is because, as previously discussed, not enough is known about the exact nature of the relationship between the observed Liking and the observed Wanting. Specifically, it is not known that it really was the case that the experience of Liking gave rise to a Wanting to keep up the activity of mindful engagement.

On other contemporary accounts of aesthetic experience discussed in the previous chapter, the observed effect of Ethical Status on Wanting could be considered evidentially neutral as regards the conclusion that the ethical status of food affects



aesthetic engagement with food. For example, it's not obvious that the production of some degree of Wanting undermines one's ability to aesthetically attend to food as per Nanay's account of aesthetic attention (Nanay, 2015). Nanay thinks of aesthetic attention as attention that is focused with regards to objects and distributed with regards to properties, but he makes no prescriptions regarding the absence (or presence) of desires that might be produced in the course of aesthetic attention. Telfer (1996), Korsmeyer (1999), and Matthen (2017) similarly emphasise that aesthetic attention and aesthetic experience have to do with engaging with objects in a holistic and discerning manner. It is true that they all emphasise, in one way or another, that aesthetic experience involves engaging with an object for its own sake, that is, in a manner that is unconnected to the desires an object might produce in us because of its instrumental or practical value. However, and importantly, they do not rule out the possibility of valuing an object in one way — say, aesthetically — while simultaneously valuing the object in another way — for example, because it is nourishing or satiating. Here's how Matthen puts this point: "Aesthetic motivations and aesthetic pleasure can co-exist with other kinds of motivation and pleasure; they cannot therefore be identified simply through the absence of the other kinds" (Matthen, 2017, p. 16; also cf. Andina & Barbero, 2018, p. 355). Thus, when considered through the lens of contemporary conceptions of aesthetic pleasure, the observed effect of Ethical Status on Wanting doesn't seem to undermine the conclusion that the ethical status of food affected aesthetic engagement with food even on a conservative interpretation of the results.

It is worth pointing out that an interpretation of the results that disregards the observed effect of Ethical Status on Wanting puts more emphasis on the notion of mindful eating to support the conclusion that the ethical status of food affected aesthetic engagement with food. In turn, this raises the question whether the notion of mindful

eating is conceptually suitable to bear the interpretative weight put on it.

As a frame of reference, recall Nanay's conception of aesthetic attention as attention that is focused with regards to objects and distributed with regards to properties. Mindful eating has been contrasted with regular, that is, distracted eating (Arch et al., 2016). Distracted eating is eating while doing or thinking about other things, such as reading or socialising. As such, distracted eating can be thought of as attention that is not focused with regards to objects but distributed with regards to objects: Other than the food, attention is also directed at the news, the conversation, or whatever. Distracted eating thus does not meet the criteria for aesthetic attention. Of course this doesn't yet establish that mindful eating does meet the criteria for aesthetic attention. But given that mindful eating contrasts with distracted eating, it seems plausible to conceptualise mindful eating as focused with regards to objects: The object of attention is "the sensory experience of eating" (Arch et al., 2016, p. 25). To determine whether mindful eating qualifies as aesthetic attention, the question that remains is thus whether mindful eating is also distributed with regards to properties. And it seems that it is. The Mindful Eating Questionnaire that was used to measure a participant's propensity for aesthetically attending to food contains five factors. One of these factors is Distraction, which captures the focused as opposed to distributed character of the attention involved in mindful eating with regards to objects. Another factor is Awareness. The Awareness factor includes items such as "Before I eat, I take a moment to appreciate the colours and smells of my food" or "I notice when there are subtle flavours in the foods I eat". The factor Awareness thus captures a kind of attention that is distributed with regards to the properties of the experience of eating the food. The attention is not just focused on the most striking aspect of the food's flavour, but it is holistically distributed across the various subtle nuances of flavour, as well as across

other perceptual features of the food such as its smell and visual appearance. Thus, mindful eating seems to qualify as aesthetic attention: Mindful eating involves attention that is focused with regards to objects and distributed with regards to properties.

However, it might be objected that there seem to be additional aspects to the notion of mindful eating that aren't obviously relevant to the notion of aesthetically attending to food. This objection seems especially relevant if the notion of aesthetically attending to food is relaxed with regard to the role that desires may play in aesthetic experience. In terms of the five factors that make up the Mindful Eating Questionnaire, the factors Disinhibition, External Cues, and Emotional Response could be considered less relevant to the notion of aesthetically attending to food compared to the factors Awareness and Distraction. In response to this objection, it could be argued that the notion of mindful eating nevertheless seems to involve aesthetic eating, and that the impact of the additional factors could be thought of as specifying a particular type of aesthetic eating, namely, mindful eating. Further, the results of the current study indicated good overall internal consistency reliability of the mindful eating scale as a whole. Thus, given that the latter two factors, Awareness and Distraction, do seem to capture a way of attending to food that is very similar to Nanay's conception of aesthetic attention, there is some reason to think that the mindful eating scale as a whole can serve as a suitable indicator of a participant's propensity to aesthetically attend to food. Nonetheless, it would be fruitful for future research to explore more nuanced ways of measuring participants' propensity for aesthetic eating by way of factor analysis, and subsequently to investigate the role that aesthetic eating plays in the context of the effect of ethical status on actual taste experience.

The observed pattern of effects due to Ethical Self-Identity is consistent with previous research that found the effect of ethical information on actual food liking to be

moderated by the ethical concern of participants (Bratanova et al., 2015; Laureati et al., 2013). Further, the fact that participants with low Ethical Self-Identity actively expressed greater Liking for the Not Fairtrade over the Fairtrade labelled foods in the current study could help explain why positive ethical information might sometimes be associated with reduced taste liking (Lee et al., 2013).

The fact that the current research employed a set of food stimuli that can be described as hedonic foods further makes the direction of the observed main effect of the ethical labelling on participants' preferences noteworthy. This is because previous research has reported inconsistent results with regards to the effect of ethical information on actual liking of hedonic foods, with some studies having found ethically positive labelling to be associated with greater liking (Enax et al., 2015; Lotz et al., 2013), some studies having observed no effect (Silva et al., 2017; Bratanova et al., 2015), and one study having found the direction of the effect to be reversed so that ethically labelled foods were liked less than their conventionally labelled counterparts (Lee et al., 2013). No food was actually eaten in the current study, but given the susceptibility of actual tasting experience to being shaped by expectations through the process of assimilation (Piqueras-Fiszman & Spence, 2015), the finding of the current research that the Fairtrade labelled foods were generally preferred over the Not Fairtrade labelled foods is relevant to the issue of actual taste experience of hedonic foods. Future studies should explore to what extent the findings of the current research translate to the actual taste experience of both hedonic and non-hedonic foods, and whether the current findings generalise to other types of ethical status manipulations such as organic or animal welfare-related food labelling. A particularly interesting type of ethical status manipulation could be to use foods that intrinsically imply some ethical status, such as meat products.

Participants in the current research were shown a vignette with information about the meaning of the Fairtrade label at the beginning of the study. This approach was chosen to ensure consistency in participants' understanding of the Fairtrade label and is in line with the procedure of other similar studies such as Linder et al. (2010) and Enax et al. (2015). However, a potential concern with such a research design is that the positive portrayal of the Fairtrade label may have primed participants to prefer the Fairtrade labelled foods over the Not Fairtrade labelled foods. Further, the effect of such priming might be especially pronounced in mindful eaters. In an interdisciplinary review of the literature on how product-extrinsic cues such as sensory descriptions affect the sensory expectations and experience of food, Piqueras-Fiszman and Spence (2015) note the crucial role that attention plays in how people perceive food. The brain generally deals with the wealth of continuous sensory input by selectively attending only to the putatively most important pieces of sensory information. Descriptive food cues that highlight particular aspects of a food's flavour can thus have the effect of directing attention to those aspects, which in turn makes those aspects stand out relatively more in the experience of the food's flavour (cf. Piqueras-Fiszman & Spence, 2015, p. 174). This mechanism is not directly applicable to the current research given that no food was actually eaten and given that no flavour-related cues were featured in the current study. Still, it might be that participants with a propensity to attend to food in a more holistic manner, such as mindful eaters, were more affected by the additional information provided in the Fairtrade vignette when engaging with the food items compared to participants less inclined to attend to food in a holistic manner. But if this was the case, then the observation that Ethical Status only affected Liking in mindful eaters could just be a consequence of the fact that mindful eaters are more susceptible to being primed by the Fairtrade vignette, rather than indicating that the ethical status of

food only affected specifically aesthetic engagement with food. Future studies should thus test whether the findings of the current research are replicated in a study design that does not provide any information regarding the meaning of the Fairtrade label to participants. Given that detailed information about the meaning of the Fairtrade label is typically not provided in situations of actual food choice and consumption, and given that many people will nonetheless have a pre-existing concept of the meaning of the Fairtrade label, such a research design would also yield additional ecological validity.

An aspect that should be seen as enhancing the ecological validity of the current research is that data were not gathered in the artificial setting of the laboratory like much research in this area. No data was gathered about the setting in which participants completed the study, for example, whether they were at home, in a cafe, or at work; future research should collect this data. However, it can still be presumed that the settings in which participants took part in the current research constituted more natural eating environments compared to a laboratory. A significant concern with conducting studies online, however, is the quality of the collected data given the lack of control over the environment in which participants complete the study. There was overall little evidence for poor data quality though, given that only one participant — who was also the quickest to complete the study — failed the attention check. Furthermore, the study was structured in a way so as to reduce as much as possible the detrimental effect of potential participant fatigue setting in during the course of the study, by placing the most critical elements of the study, the LFPQ tasks and the MEQ questionnaire, at the beginning of the study procedure. Future studies that explore to what extent the findings of the current research translate to actual taste experience should ensure that data are not exclusively collected in the controlled environment of the research laboratory but also in more natural contexts of food choice and food consumption, such as supermarkets,

cafes, restaurants, or at home. As previously suggested, future studies should also consider employing an aesthetic eating intervention to manipulate aesthetic eating in participants, rather than relying exclusively on participant responses to the Mindful Eating Questionnaire. If consistent with the findings of the current research, the data produced by such research will significantly strengthen the case for the conclusion that the ethical status of food affects aesthetic eating but does not affect non-aesthetic eating.

## **Chapter Six: Synthesis of Findings and Reflections on the Interdisciplinary**

### **Methodology of This Thesis**

The aim of this thesis was to integrate philosophical and psychological approaches to develop new interdisciplinary perspectives on the interaction between ethical and aesthetic value in the food domain. In more concrete terms, this overarching aim of the thesis may be restated, roughly, as exploring whether, and if so, how, a food's ethical status affects its aesthetic (in the sense of gustatory) evaluation. The thesis approached this overarching aim by attempting to answer two related questions: First, on what conceptual basis might ethical-aesthetic value interaction in food be possible? And second, to the extent that such interaction is possible, what is the nature of this interaction from an empirical perspective? The first question was primarily addressed by way of philosophical analysis, while the second question was primarily addressed by conducting empirical studies.

Chapter One addressed the question of on what conceptual basis ethical-aesthetic value interaction in food might be possible, by exploring the applicability of the existing philosophical debate on the interaction between ethical value and aesthetic value in art (Levinson, 1998) to the case of food. I provided a brief overview of the various accounts put forward in this debate in relation to art, and then considered whether, and how, one particularly influential account of ethical-aesthetic value interaction, Carroll's moderate moralism (1996), might be extended from the art case to the food case. I argued that for Carroll's account to be applicable in the food domain, it would need to be part of the aesthetic aims of a food to elicit a moral response to its means of production, such that the food's capacity to achieve its intended aesthetic effects is enhanced, or diminished, depending on whether it succeeds in eliciting the intended moral response. I further argued that while this seemed possible in principle, it



would only apply to a limited set of cases in the food domain. I then considered whether the notion of a *trace* as proposed in Korsmeyer's means moralism about food (2012) succeeded in establishing the aesthetic relevance of the ethical aspects of a food's means of production. Korsmeyer's suggestion had been that if a food's means of production leave a perceivable trace in the food, then the ethical aspects associated with those means of production are relevant to the aesthetic evaluation of the food. I argued that while there were some problems with Korsmeyer's own account, it could be suggested that traces can be thought of as establishing ethical-aesthetic value interaction in food by way of constituting invitations for eaters to share moral perspectives regarding a food's means of production.

Over the following two chapters (Chapter Two and Chapter Three), the focus of the thesis shifted to address the second question articulated above: What is the empirical evidence for ethical-aesthetic value interaction in food if we accept the idea that traces are central to establishing ethical-aesthetic value interaction in food? While there is a body of existing empirical research on the effect of ethical information on food taste evaluation, there has to date been no systematic review of this literature, and previous research has generally not attended to the role that perceptions regarding the presence of traces in food might play in driving the apparent effect of ethical information on food liking. Chapters Two and Three thus sought to address these limitations in the existing literature.

Chapter Two presented a systematic review of the empirical literature on the effect of ethical information on taste evaluation. Out of 29 studies included in the review, 22 observed an effect of ethical information on taste liking. The findings of the systematic review painted an inconsistent picture with regard to the role that the notion of a trace might play in driving the effect of ethical information on taste liking. Some

studies (e.g., Lotz et al., 2013; Enax et al., 2015) observed an effect of ethical information on taste liking in cases where it might seem implausible that the ethical information employed in the studies would be associated with the presence of traces in the food (e.g., describing food as having been produced by workers who are paid fair wages). Other studies (e.g., Barsics et al., 2017; Bratanova et al., 2015, studies 2 and 3b) observed no effect even though one might expect the type of ethical information that was employed in the study to be associated with the presence of traces (e.g., organic production methods). No robust conclusions regarding the role of traces in the context of the effect of ethical information on taste evaluation could be inferred from these findings, however, as not enough was known about people's intuitions regarding which ethically valenced food production methods actually leave noticeable traces in food products.

In terms of the relative valence of the effect of ethical information on food liking, the review revealed an inconsistent pattern of effects: In most cases where studies reported an effect of ethical information on taste liking, ethically positive information was associated with an increase in taste liking (e.g., Hemmerling et al., 2013; Lotz et al., 2013), but the relative valence of this effect was in some cases reversed, such that ethically positive information was associated with a decrease in taste liking (Lee et al., 2013; Bernard & Liu, 2017). Many of the studies that observed no effect of ethical information on taste liking, or that observed the relative valence of the effect to be reversed, employed indulgent foods such as cookies or potato crisps (Lee et al., 2013; Bratanova et al., 2015; Silva et al., 2017); however, not all studies that used such indulgent foods found no effect, or observed the relative valence of the effect to be reversed (Enax et al., 2015; Lotz et al., 2013, studies 2 and 3; Schouteten et al., 2019). The results of several studies further suggested that the ethical concern of participants

might moderate the effect of ethical information on taste liking (e.g., Laureati et al., 2013; Sörqvist et al., 2015).

Chapter Three detailed a set of three studies that were designed to test the hypothesis that the effect of ethical information on taste liking is stronger in the case of ethical information about a food's production methods that is associated with the expectation of traces, compared to ethical information that is not associated with the expectation of traces. The proposed psychological mechanism underlying this hypothesis was that the expectation of noticeable traces in food would enhance the attentional salience of the ethically valenced aspects of the food's production methods during the tasting experience.

Two online-based pilot studies were conducted to identify a set of vignettes describing food production methods that were reliably associated with the expectation of the presence, or absence, of noticeable differences (that is, traces) in the food products (Pilot Study 1), and that were perceived as distinctly ethical or unethical (Pilot Study 2). The vignettes identified on the basis of this set of pilot studies formed the basis of a lab-based study in which participants were asked to taste and rate two types of indulgent foods (cookies and potato crisps). Each cookie and crisp sample was accompanied by a vignette that described the sample's alleged means of production. Vignettes manipulated the factors Trace (two levels: Trace; No Trace) and Ethical Status (two levels: Ethical; Unethical). The results of the Lab Study suggested that taste evaluations of cookies and crisps were affected by ethical information. In particular, samples that were described in ethically positive terms were rated as better tasting compared to samples described in ethically negative terms; the relative valence of the effect of ethical information on taste evaluation observed in the Lab Study was thus consistent with the valence constraint upheld by (moderate) moralism about ethical-

aesthetic value interaction. However, the pattern of effects due to Ethical Status was the same in Trace and No Trace conditions; thus, the hypothesis that perceptions regarding traces drive the effect of ethical information on food taste evaluation was not supported.

Chapters Two and Three reviewed and corroborated the empirical evidence that the ethical status of food can affect gustatory evaluation, though they empirically undermined the idea that traces play a role in establishing ethical-aesthetic value interaction in food. Chapters Four and Five thus approached the issue of the potential conceptual basis for ethical-aesthetic value interaction in food from a different perspective: Given the apparent empirical effect of a food's ethical status on gustatory experience, can it be determined whether the gustatory experience being affected by the ethical status of food is appropriately characterised as aesthetic? That is, does the ethical status of food affect aesthetic or non-aesthetic engagement with food? To address this question, Chapter Four provided a discussion of whether gustatory experiences can be aesthetic, and Chapter Five investigated empirically whether the ethical status of food affects specifically aesthetic ways of engaging with food.

Chapter Four considered the question of whether, and how, gustatory experiences fit into various philosophical accounts of the aesthetic. The chapter covered a diverse range of historical (Kant, 1790/1911) and contemporary (Telfer, 1996; Korsmeyer, 1999; Nanay, 2015; Walton, 1993) accounts of the aesthetic, and throughout the chapter I have demonstrated that gustatory experiences can indeed be aesthetic. All of the accounts discussed over the course of the chapter emphasised, in one way or another, that some way of holistically engaging with an object is central to aesthetic experience. There were differences, however, between the various accounts with respect to the scope of gustatory experiences that qualify as aesthetic. Kant's account of aesthetic engagement as disinterested reflective contemplation of an object proved to be

the most restrictive account with regard to the scope of gustatory experiences that count as aesthetic, although the exact extent of this restrictiveness seemed to vary somewhat between different interpretations (cf. Sweeney, 2012; Zangwill, 1995) of Kant's conception of disinterestedness. On contemporary accounts of the aesthetic, there were fewer limitations with respect to the scope of gustatory experiences that qualify as aesthetic. This should not be misunderstood as the claim that all gustatory experiences are aesthetic experiences, however. The claim is, rather, that *some* gustatory experiences are aesthetic experiences.

Chapter Five built on Chapter Four's conclusion that some gustatory experiences are aesthetic experiences, by developing a novel operationalisation of the construct of Kantian aesthetic engagement with food, and by investigating whether the ethical status of food affects aesthetic or non-aesthetic engagement with food. Kant (1790/1911) conceived of aesthetic engagement as disinterested reflective contemplation, which may be roughly restated as holistically attending to an object's perceptual features (reflective contemplation) in a way that is unconnected to one's desires (disinterested). For the purposes of the research reported in Chapter Five, Kantian aesthetic engagement with food was operationalised as Liking without corresponding Wanting (to capture the disinterested aspect of Kantian aesthetic engagement) in mindful eaters (to capture the reflective contemplative aspect of Kantian aesthetic engagement).

Liking and Wanting (Morales & Berridge, 2020) of ethically labelled food items were measured by adapting the Leeds Food Preference Questionnaire (LFPQ; Finlayson et al., 2008), and the Mindful Eating Questionnaire (Framson et al., 2009) was employed to measure a participant's propensity for mindful eating. The LFPQ is a behavioural task that measures the (Explicit) Liking of a food category by asking

participants to rate the perceived pleasantness of individually presented food items. The (Implicit) Wanting for a food category is inferred by recording participants' choices and response times in a series of trials where food items are presented in pairs, with a faster response time indicating greater Wanting. A Stimuli Validation Study was conducted prior to the LFPQ Main Study; the purpose of the Stimuli Validation Study was to inform the selection of a set of food images that were well matched with respect to perceptions of macronutrient content, and to validate a positive ethical valence (Fairtrade) vs. control (Not Fairtrade) labelling regime to manipulate the ethical status of food images.

It is worth noting that the results of Pilot Study 1 implied that Fairtrade labelling is unlikely to be associated with the expected occurrence of traces. This was judged acceptable for the purposes of the research presented in Chapter Five, however: The rationale for implementing a Fairtrade-based labelling regime in the LFPQ Main Study was, first, that Fairtrade constitutes a "purer" ethical manipulation compared to, for example, organic labelling, which tends to be associated with issues regarding healthiness and food safety as well as ethicalness (Iweala et al., 2019; Hughner et al., 2007). A second consideration was that the cumulative empirical findings of Chapters Two and Three indicated that perceptions regarding traces are of no significance in the context of the effect of ethical information on food evaluation, so it was judged that there was no clear rationale for continuing to employ a labelling regime that would imply the presence of traces.

The results of the LFPQ Main Study revealed disassociations between Liking and Wanting depending on a participant's propensity for mindful eating: There was no effect of Ethical Status on Liking in participants with a low propensity for mindful eating; however, as a participant's propensity for mindful eating increased, ethically

positive food labelling increased Liking relative to the control condition. Moreover, there was no impact of a participant's propensity for mindful eating on the effect of Ethical Status on Wanting. There was a main effect of Ethical Status on Wanting, such that foods labelled Fairtrade were wanted more than foods labelled Not Fairtrade; however, it was argued that this main effect could be explained as an effect driven by the degree of a participant's ethical concern, which seemed to operate independently of the effect of Ethical Status on Liking and Wanting driven by a participant's propensity for mindful eating. Thus, it was argued that the results of the LFPQ Main Study could be interpreted as indicating that the ethical status of food had an effect on aesthetic but not on non-aesthetic ways of engaging with food.

The overarching question explored by this thesis was whether ethical-aesthetic value interaction in food is possible. The discussion and empirical results provided in Chapters Four and Five provide some reason to give a positive answer to this question: If it is indeed the case that the ethical status of food does affect evaluations of food that are grounded in aesthetic engagement, but that a food's ethical status does *not* affect evaluations of food that are grounded in non-aesthetic engagement, then this could be seen as establishing ethical-aesthetic value interaction on the grounds that the ethical status of food affects the specifically *aesthetic* evaluation of food. The phrasing of this contention is deliberately tentative. This is because there are several caveats to this contention. I will now briefly discuss what I consider to be the two most significant of these caveats.

The first caveat is that there does not seem to be sufficient empirical evidence to fully accept the conclusion that ethical-aesthetic value interaction in food is possible. Perhaps the clearest reason for this lies in the fact that the LFPQ Main Study did not involve any actual eating of any food. Thus, to strengthen the conclusion that ethical-

aesthetic value interaction in food is indeed possible, more evidence is needed that demonstrates that the ethical status of food affects aesthetic engagement in the context of actual eating. While it was not possible to conduct such research in the context of the current thesis due to the occurrence of the COVID-19 pandemic, there are several potential avenues for future research to build on the findings of this thesis, by exploring the role of aesthetic engagement in the context of the effect of ethical information on taste evaluation. One potential research design would be to correlate the magnitude of the effect of ethical food labelling on taste evaluations with participants' propensity for mindful eating. Another research design that could be proposed is to investigate how a mindful eating intervention relates to the effect of ethical food labelling on taste evaluations in a 2x2 research design, with factors Ethical Status (Ethical vs. Unethical/Control) and Mindful Eating (Intervention vs. No Intervention). The findings from such research would significantly strengthen the conclusion that ethical-aesthetic value interaction in food is indeed possible.

The second caveat is the more serious one. Even if the empirical evidence obtained from the studies proposed in the preceding paragraph supported the hypothesis that the ethical status of food affects genuinely aesthetic engagement with food, it still seems an open philosophical question whether this evidence is sufficient to establish ethical-aesthetic value interaction in food. The worry can be stated like this: Even if it looks as though the ethical status of food affects the specifically aesthetic evaluation of food, this in and of itself doesn't establish that it is aesthetically *warranted* for aesthetic evaluation to be affected in this way. It might just be that the ethical status of food biases our aesthetic responses in a way that has no purchase on whatever the appropriate aesthetic evaluation of the food is, or should be.

There is a sense in which this worry circles back to the discussion provided in



Chapter One, where the issue was to determine the extent to which it could be said that the aesthetic aims of foods involve the eliciting of specifically moral responses in eaters: If there is no such ethical component to the intended aesthetic response to the food, then it's not clear to what extent any ethical responses to the food could be relevant to its aesthetic evaluation. The suggestion at the conclusion of Chapter One had been that the notion of a trace could establish the aesthetic relevance of certain ethical responses to food, but the empirical findings of Chapters Two and Three did not support this view. As discussed in the Discussion section of the Lab Study reported in Chapter Three, future research should explore if the insignificance of the notion of a trace is replicated across a broader range of foods, types of ethical information, non-laboratory settings, between-subjects research designs, and for larger as well as more diverse samples, given that the participants in the Lab Study were predominantly students.

Even if such future research corroborates the finding that traces seem to fail to establish the aesthetic relevance of a food's ethical status, and even if no alternative approach is found to establish the conceptual relevance of the ethical status of food to the aesthetic evaluation of food, it could still be insisted that empirical evidence according to which the ethical status of food seems to affect the specifically aesthetic evaluation of food (as suggested by the results of the LFPQ Main Study reported in Chapter Five) is sufficient to establish ethical-aesthetic value interaction in food. Yet, this insistence would come at a significant conceptual cost. To understand what this conceptual cost amounts to, we need to recall the discussion of Shiner's view in Chapter Four. Shiner (1996) argued that the aptness of an aesthetic judgement is determined by way of criterial justification rather than causal explanation. The wider issue at stake here is the normativity of aesthetic judgements, and the discussion in Chapter Four bore out the widely shared idea in philosophical aesthetics that there is a sense in which

aesthetic judgements can be objective in virtue of being justified. Now consider again the claim that it is sufficient to establish ethical-aesthetic value interaction in food if there is a body of empirical evidence that suggests that the ethical status of food affects the specifically aesthetic evaluation of food. More specifically, consider this claim in light of the preceding paragraph whereby we seem to lack a conceptual framework that establishes the aesthetic relevance of the ethical status of food in the context of aesthetic evaluation. If the aesthetic relevance of the ethical status of food could somehow be established, then this might open up various ways for ethical considerations to feature in the criterial justifications of aesthetic judgements of food. But if, as I have argued, the aesthetic relevance of the ethical status of food can *not* be established, then it is not clear how ethical considerations can feature in the criterial justification of an aesthetic judgement of food. Importantly, pointing to a body of empirical evidence that suggests that the ethical status of food seems to *causally* affect the specifically aesthetic evaluation of food has no purchase on the issue of whether there is any aesthetically sound justification for aesthetic judgments to be affected in this way. Thus, the argument that such empirical evidence is nevertheless sufficient to establish ethical-aesthetic value interaction in food commits one to a hollow conception of aesthetic evaluation as causally determined rather than criterially justified. This is the conceptual cost I alluded to earlier, and it inclines me to argue that the research presented in this thesis does not sustain the conclusion that ethical-aesthetic value interaction in food has been established.

The conclusion that the findings of this thesis do not support ethical-aesthetic value interaction in food is not intended to discourage future interdisciplinary research into this issue, however. In particular, a fruitful avenue for future research that has not yet been discussed would be to run replication studies of the empirical work presented

in Chapters Three and Five of this thesis, as well as of the research suggested previously in the current chapter, with samples consisting of gustatory experts. It is common in the literature on the normativity of aesthetic judgements to appeal to the joint verdict of expert critics as providing an objective standard of aesthetic evaluation (Hume, 1757/2008; Railton, 1998; Liao & Meskin, 2018). Thus, if the ethical status of food was shown to affect expert aesthetic evaluations of food, then this could be seen as providing reason to reconsider the conceptual basis for the possibility of ethical-aesthetic value interaction in food so as to be able to accommodate this hypothetical evidence (for example, by exploring whether Shiner's view could be relaxed so that aesthetic judgements need not necessarily be entirely accountable for in terms of criterial justification; perhaps it's sufficient for the engagement on which the aesthetic judgement is based to be the right kind of — that is, aesthetic — engagement).

There are, further, a number of encouraging practical implications of the research presented in this thesis that warrant further exploration. While previous research on the effect of ethical information on taste evaluation has found inconsistent results in terms of the relative valence of this effect as discussed above, the empirical findings of this thesis have consistently shown that labelling food in ethically positive terms enhances people's evaluations of food. The findings of this thesis may thus help to lay the conceptual groundwork for further research into ethical food labelling, with a particular focus on how people can be motivated to make more sustainable food choices on the basis that more ethical foods afford a more pleasurable eating experience. Such research is relevant to the food industry, as it can act as an incentive to make food production methods more sustainable by making the case that this is what consumers actually prefer. Relatedly, an enhanced understanding of what consumers prefer in relation to the ethical aspects of various food production methods might help to

strengthen the market position of foods that are already being produced through ethical means. Further, and perhaps most importantly, policymakers can benefit from such research in contexts such as designing and implementing new sustainability labelling schemes to nudge consumers to make more sustainable food choices; the fact that the findings of this thesis suggest that consumers actually derive more pleasure from more ethical foods could make such nudging particularly effective.

The findings of the LFPQ Main Study, reported in Chapter Five, can also be seen as expanding the value inherent in encouraging people to attend mindfully to the experience of eating food. Previous research has suggested that mindful eating can not only enhance the pleasure afforded by eating, but that mindful eating can also play a role in reducing obesogenic eating behaviours by leading to reduced calorie intake of unhealthy foods (Arch et al., 2016). The findings of this thesis add the apparently greater enjoyment of foods perceived as ethical to the benefits of mindful eating. Future research should explore the extent to which the findings of the LFPQ Main Study are replicated for a broader range of ethical food labelling regimes and food types, as well as how the findings of the LFPQ Main Study translate to actual eating experience as discussed above. If such future research corroborates the finding of this thesis that mindful eating is associated with increased enjoyment of foods that are perceived as ethical, then this finding could further be leveraged to motivate more sustainable, as well as healthier, eating behaviours.

### **Reflections on the Interdisciplinary Methodology of This Thesis**

In this concluding section to the thesis, I will first situate the methodology of this thesis in the context of the emerging field of experimental philosophy, before offering some reflections on the challenges, as well as opportunities, that arose from conducting interdisciplinary research.

The general methodological approach adopted throughout this thesis was to begin by engaging with some relevant philosophical theory, connect this philosophical theorising to the psychological literature, and then design and conduct empirical studies to collect data that would shed new light on the issues emerging from this interdisciplinary dialogue. This methodological approach situates the thesis within the scope of *experimental philosophy*, which is an umbrella term for research that brings empirical methods to bear on philosophical issues. While experimental philosophy is a broad church that encompasses a wide variety of research avenues and methods, there is a general distinction between research that is concerned with the role that intuitions play in philosophical inquiry, and research that does not concern itself with the role of intuitions in philosophical inquiry. These two strands of research have been termed *intuitional* and *non-intuitional* experimental philosophy, respectively (Sytsma & Livengood, 2015). Within non-intuitional experimental philosophy, Sytsma and Livengood make a further distinction between pragmatist and naturalist research programmes. Roughly, the aims of pragmatist experimental philosophy are to describe how people use philosophical concepts, and to explore the practical implications of this, as opposed to trying to analyse the nature of these concepts. Naturalist experimental philosophy, in contrast, might broadly be described as the study of the various mechanisms at work in the human mind. Naturalist experimental philosophy lies on a theoretical and methodological continuum with other scientific disciplines such as psychology, cognitive science, or neuroscience.

In the context of this classification of research programmes within experimental philosophy, it would be appropriate to characterise the current thesis as naturalist

experimental philosophy.<sup>25</sup> It would be even more accurate, however, to describe the overall methodology of this thesis as lying on the *intersection* between naturalist experimental philosophy and psychology. This is because the approach taken in this thesis has, generally speaking, not just been a matter of bringing empirical methods to bear on purely philosophical questions. Instead, the approach has been to bring philosophical theorising into contact with the psychological literature, and to design empirical studies in such a way that the findings would contribute to the literature in both disciplines.

Even though the overall methodology of the thesis is best described as interdisciplinary in virtue of this integration of philosophical and psychological methods, there is a degree of multidisciplinary to this thesis to the extent that parts of the thesis are primarily philosophical (for example, Chapter Four) or primarily psychological (for example, Chapter Two) in their approach. However, even when writing these chapters the aim was to develop and present the content in ways that were conceptually and empirically consistent with the literatures of both disciplines, as well as intelligible to a reader from the respective other discipline.

More generally, the interdisciplinary nature of this work contributes to an enhanced awareness of the fact that the readership of the thesis will likely be a non-specialist readership with respect to certain parts of the thesis. This necessitates a writing style that is accessible without compromising academic rigour. There will no doubt have been sections in this thesis where I have not made it as easy for my reader as

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<sup>25</sup> It could be argued that Pilot Studies 1 and 2 of this thesis should be characterised as (descriptive) intuitional experimental philosophy as these studies explored participants' intuitions regarding traces. However, the focus on intuitions in these pilot studies was not motivated by research questions regarding the evidential value of intuitions in the context of philosophical inquiry, or by an interest in the underlying mechanisms that produce these intuitions. Rather, the focus on intuitions was motivated by the wider research programme of this thesis, which is more appropriately characterised as naturalist experimental philosophy.

I perhaps could have, but I nevertheless hope that this has helped to make my writing more accessible than it otherwise might have been.

The process of integrating the methods and concepts of two rather distinct academic disciplines is often challenging and somewhat unpredictable, but undoubtedly academically rewarding and intellectually exciting. Some characteristic challenges have been that it is often not clear from the outset how a given concept or approach from one discipline might be relatable to the other discipline. There might initially be some superficially apparent connections across disciplines; for example, it might initially seem obvious that the empirical literature according to which ethical information affects taste evaluations constitutes clear evidence for ethical-aesthetic value interaction in food. Similarly, it might initially seem that the notion of mindful eating is more or less identical to the notion of eating with aesthetic attention. But often, more rigorous inspection of these superficially apparent connections reveals various complexities and disanalogies. Chapters One through Three (if not the entire thesis) revealed the conceptual and empirical challenges inherent in relating empirical evidence related to the effect of ethical information on taste evaluation to the issue of ethical-aesthetic value interaction in food. In the case of relating the notion of mindful eating to the notion of aesthetically attending to food, the disanalogies between the two notions were much less severe, so that it was judged acceptable to employ the notion of mindful eating in the context of the operationalisation of aesthetic engagement with food that was developed in Chapter Five. It could be argued that it would have been ideal to develop a novel scale to specifically measure a participant's propensity to aesthetically attend to food, but doing so would have required additional time and resources compared to employing an established and validated tool from the existing psychological literature.

Further challenges often reside in the different ways that philosophers and psychologists define and use various concepts. Philosophers have a tendency to idealise cognitive processes like attention, or affective phenomena like the experience of particular kinds of pleasure, in ways that are useful for the purposes of conceptual analysis but unlikely to obtain, in this idealised form, in the real world. Thus, when it comes to relating philosophical theories that heavily rely on such idealised mental or emotional states to the messy reality of empirical data provided by real humans, care needs to be taken not to set unrealistic aims regarding what the empirical data needs to look like so that it can be considered as lending empirical support to a philosophical theory. For example, Chapter Five concluded that ethical labelling seemed to affect aesthetic engagement with food, but it would be unrealistic to require for this conclusion to be based on empirical evidence that showed that the ethical labelling had an effect *exclusively* in participants with the highest mindful eating scores.

In other contexts, psychologists can have a reductionist tendency that leads to oversimplifications in the analysis of concepts that is the methodological bread and butter of philosophers. Chapter Four offered an extensive discussion of the notion of the aesthetic and its applicability to experiences of food. This sort of conceptual analysis is an area where psychologists should turn to disciplines such as philosophy to inform empirical research; often the approach adopted in the empirical literature to analyse a concept like the aesthetic is to provide a reductionist account that seeks to explain the concept (and associated practice) as purely causally and evolutionarily determined, while deriving from this view normative standards of aesthetic evaluation that are at odds with aesthetic critical practice. (For example, Rolls (2017, p. 128) argues that because there is a “biological foundation” for representational art, “there may be a basis for consensus about what is good [representational] art”; in contrast, judgements of



abstract art lack such a biological foundation and may thus be “much more arbitrary, and driven by short-term fashion”.) This is not to suggest that causal and evolutionary factors are of no relevance to the question of why humans might find value in aesthetic experiences, but such reductionist approaches seem to me inadequate to provide an appropriately rich and nuanced account of a concept like the aesthetic.

The process and practice of overcoming these challenges, however, opens up opportunities to develop and conduct research that would be impossible to carry out in the methodological paradigms of the respective disciplines of philosophy or psychology alone. The research reported in Chapter Five is perhaps the clearest demonstration of this: The process of developing an operationalisation of the construct of aesthetic engagement with food necessitated engagement with relevant theory in the philosophical as well as psychological literature; the practical implementation of this novel operationalisation, as well as the analysis of the resultant empirical data, required the application of methods from psychology while remaining sensitive to the broader philosophical issues at stake; and the discussion and interpretation of the findings was guided by the underlying philosophical as well as psychological theory.

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## **Appendix A.1: Vignettes Created for Trace Pilot Studies**

### **Environment/No Trace**

#### ***Tomato***

Tomato A/B is grown locally in the UK, in a conventional greenhouse using common agricultural methods that include the use of fertilisers, herbicides and pesticides for disease and pest control. The greenhouse is powered by the typical UK energy mix that comprises power derived from gas, nuclear power, coal, and renewables, among others.

Tomato B/A is grown locally in the UK, in a conventional greenhouse using common agricultural methods that include the use of fertilisers, herbicides and pesticides for disease and pest control. The greenhouse is powered exclusively by renewable energy.

#### ***Tea***

Cup of tea A/B is brewed from tea that was grown using conventional agricultural methods, including the use of common fertilisers, herbicides and pesticides to control pests and diseases. The tea leaves were then sealed and packaged to be sold as loose leaf tea. To prepare cup of tea A, 2g of the tea are brewed for two minutes and then separated from the brewed tea.

Cup of tea B/A is brewed from tea that was grown using conventional agricultural methods, including the use of common fertilisers, herbicides and pesticides to control pests and diseases. The tea leaves were then sealed and packaged to be sold in teabags. Each teabag contains 2g of tea, and each teabag is individually wrapped in a plastic sachet. The packaging process as well as the packaging itself result in a significant amount of plastic waste. To prepare cup of tea B/A, one teabag is brewed for two minutes and then separated from the brewed tea.

***Cookie***

Cookie A/B is made from conventionally sourced ingredients in a factory that is poorly optimised with regards to energy efficiency as well as waste and pollution reduction. As a result of this, the factory leaves a significant carbon footprint and causes severe disruptions to surrounding ecosystems.

Cookie B/A is made from conventionally sourced ingredients in a modern factory that is highly optimised with regards to energy efficiency and with on-site waste-to-energy facilities to minimise waste and pollution. As a result of this, the factory leaves no net carbon footprint and causes only minimal disruptions to surrounding ecosystems.

**Environment/Trace*****Apple***

Apple A/B is grown locally in the UK using conventional agricultural methods that include the use of synthetic fertilisers, herbicides and pesticides for disease and pest control.

Apple B/A is grown locally in the UK using organic agricultural methods designed to minimise environmental impact. No synthetic fertilisers, herbicides or pesticides are used throughout the growing process; instead, pests and diseases are controlled using only natural methods.

***Coffee Beans***

Coffee beans A/B are obtained from coffee plants that are grown using conventional agricultural methods, including the use of common fertilisers, herbicides and pesticides to control pests and diseases. In order to access the coffee beans, the coffee fruits are picked when they are ripe and then dried on raised beds in the sun. The resultant fermentation process naturally separates the coffee bean from the coffee fruit.

Coffee beans B/A are obtained from coffee plants that are grown using conventional agricultural methods, including the use of common fertilisers, herbicides and pesticides to control pests and diseases. In order to access the coffee beans, the coffee fruits are picked when they are ripe and the outer layer of the fruit is removed, leaving the mucilage surrounding the coffee bean. In order to access the coffee beans, the coffee is then soaked and the mucilage is washed away with fresh water, a process that consumes large amounts of fresh water and that is often employed in regions where fresh water resources are scarce.

### ***Crisps***

Potato crisps A/B are made using ingredients (potatoes and vegetable oil) that are grown in a way that relies heavily on the use of agricultural chemicals. Pest and disease control is managed using synthetic pesticides, herbicides and oil-based fertilisers which can have a disruptive effect on the surrounding ecosystems, particularly in virtue of yielding barren soil and contaminating nearby water resources.

Potato crisps B/A are made using organic ingredients (potatoes and vegetable oil) that are grown in a way that does not involve the use of any synthetic pesticides, herbicides or oil-based fertilisers. Pest and disease control relies exclusively on natural methods that do not have a disruptive effect on the surrounding ecosystems and ensure that soils remain fertile in the long term.

### **Human Welfare/No Trace**

#### ***Banana***

Banana A/B is grown on a farm where workers are paid wages that are average for the region. The workers work and live in conditions that are typical in the region. The bananas are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides.

Banana B/A is grown on a farm where workers are paid wages that are considerably below the average for the region. The workers work and live in conditions that are worse than is typical in the region. The bananas are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides.

### ***Raisins***

Raisins A/B are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides. The workers on the farm get paid wages that are typical in the region. They also live and work in conditions typical for the region, but their employer is not otherwise committed to improving their living and working conditions.

Raisins B/A are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides. The workers on the farm get paid wages that are typical in the region. They also live and work in conditions typical for the region, but their employer is committed to improving their living and working conditions by lobbying regional governments and working with local charities dedicated to improving the worker's living and working conditions.

### ***Wine***

Wine A/B is produced by processing grapes in a manner that is typical for the winemaking industry. The grapes are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides. The grapevine workers get paid wages that are average in the region, and they work and live in typical conditions. However, their employer is actively trying to undermine their worker's rights by heavily lobbying regional governments and plans to curtail their wages in order to cut costs.

Wine B/A is produced by processing grapes in a manner that is typical for the winemaking industry. The grapes are grown using standard agricultural measures to control pests and diseases, which includes the use of common fertilisers, herbicides and pesticides. The grapevine workers get paid wages that are average in the region, and they work and live in typical conditions. However, their employer is actively trying to strengthen their worker's rights by heavily lobbying regional governments and plans to increase their wages in order to improve their standards of living.

### **Human Welfare/Trace**

#### ***Grapes***

Grapes A/B are grown in a less economically developed country, using standard agricultural measures to control pests and diseases. This includes the use of common fertilisers, herbicides and pesticides. The farmer's understanding of grape farming practices is at a level that is typical for the region.

Grapes B/A are grown in a less economically developed country, using standard agricultural measures to control pests and diseases. This includes the use of common fertilisers, herbicides and pesticides. In an effort to maintain control over the farmer, the company that buys the grapes from the farmer has suppressed the farmer's attempts to improve his understanding of grape farming practices. As a result, the farmer's understanding of grape farming practices is below the level that is typical for the region.

#### ***Coffee***

Coffee A/B is obtained from coffee plants that are grown using standard agricultural measures for pest and disease control, including the use of common fertilisers, herbicides and pesticides. The farmer's understanding of coffee farming practices is at a level that is typical for the region.

Coffee B/A is obtained from coffee plants that are grown using standard

agricultural measures for pest and disease control, including the use of common fertilisers, herbicides and pesticides. As part of its corporate social responsibility policy, the company that buys the coffee from the farmer has made an active effort to provide the farmer with a deeper understanding of coffee farming practices. As a result, the farmer's understanding of coffee farming practices is at a higher level than is typical for the region.

### ***Chocolate***

Chocolate A/B is produced using cocoa beans that are grown using standard agricultural measures for pest and disease control, including the use of common fertilisers, herbicides and pesticides. In an effort to maintain control over the farmer, the company that buys the cocoa beans from the farmer has suppressed the farmer's attempts to improve his understanding of cocoa farming practices. As a result, the farmer's understanding of cocoa farming practices is below the level that is typical for the region.

Chocolate B/A is produced using cocoa beans that are grown using standard agricultural measures for pest and disease control, including the use of common fertilisers, herbicides and pesticides. As part of its corporate social responsibility policy, the company that buys the cocoa beans from the farmer has made an active effort to provide the farmer with a deeper understanding of cocoa farming practices. As a result, the farmer's understanding of cocoa farming practices is at a higher level than is typical for the region.

### **Animal Welfare/No Trace**

#### ***Egg***

Egg A/B is laid by a free range chicken on an egg farm that practices chick shredding, that is, the process of culling newborn male chicks by placing them into a



large high-speed grinder. Since male chickens do not lay eggs, male chicks are of no use to the egg farm.

Egg B/A is laid by a free range chicken on an egg farm that practices in-ovo gender identification of fertilised eggs to prevent the hatching of male chicks. Since male chickens do not lay eggs, male chicks are of no use to the egg farm.

### ***Tuna***

Tuna A/B is caught using conventional nets, which can trap and kill dolphins along with the tuna. The tuna is then processed and packaged using conventional industry procedures.

Tuna B/A is caught using dolphin-friendly nets, which are designed in such a way that when a dolphin gets trapped in the net, it can usually escape the net by itself. The tuna is then processed and packaged using conventional industry procedures.

### ***Chicken Nuggets***

Chicken nuggets A/B are made from conventional chicken meat. The meat is processed and the chicken nuggets are prepared in a manner that is typical of the production and preparation of chicken nuggets. The company that is processing the meat and preparing the chicken nuggets maintains neutrality with regards to any potential changes to animal welfare legislation.

Chicken nuggets B/A are made from conventional chicken meat. The meat is processed and the chicken nuggets are prepared in a manner that is typical of the production and preparation of chicken nuggets. However, the company that is processing the meat and preparing the chicken nuggets is actively lobbying for a loosening of standards in animal welfare legislation in order to increase revenue.

### ***Animal Welfare/Trace***

### ***Milk***

Fresh milk A/B is taken from a cow living in conditions that are typical within the industry. The cow is fed on hay alongside some grains and spends most of the time indoors alongside many other cows, with limited space to move freely. On rare occasions, the cows are allowed to move relatively freely outside.

Fresh milk B/A is taken from a cow living in conditions that are better than usual in the industry. The cow is fed on hay alongside some grains and spends most of the time outdoors alongside some other cows, with lots of space to move freely. On rare occasions, the cows are required to stay indoors, still with sufficient space to move relatively freely among themselves.

### ***Lobster***

Lobster A/B is caught at sea and then transferred to an aquarium in a restaurant. To prepare the lobster, it is put from the aquarium straight into a pot of boiling water. Recent scientific findings suggest that crustaceans experience pain.

Lobster B/A is caught at sea and then transferred to an aquarium in a restaurant. To prepare the lobster, it is taken out of the aquarium and stunned before putting it into a pot of boiling water. Recent scientific findings suggest that crustaceans experience pain.

### ***Bacon***

Bacon A/B is obtained from a pig that is held in conditions typical of the industry, spending most of its life indoors with many other pigs and very limited space to move. The slaughtering process consists in the pig being stunned first and then shot directly into the brain. The meat is then processed to produce the bacon following standard industry procedures.

Bacon B/A is obtained from a pig that is held in conditions typical of the industry, spending most of its life indoors with many other pigs and very limited space

to move. The slaughtering process consists in the pig having its throat cut and then being left to bleed to death, with no prior stunning. The meat is then processed to produce the bacon following standard industry procedures.

## Appendix A.2: Selected Qualitative Responses From Trace Pilot Study 1

All quotes are (sic).

### Colour Coding Used To Highlight Representative Quotes

- **Descriptive/Tangential** (including health/nutritional benefits)
- **Speculative**
- **Reasoned**
- (Apparent misunderstanding of the tomato vignette)
- (Apparent awareness of halo effect)

### Environment/No Trace

#### Tomato

##### Speculative

- “I would expect that the substances contained in gas, coal, etc would be in some way absorbed by the tomatoes and thus affecting their taste and appearance, whereas Tomato B would probably be more natural looking and taste better.”
- “i think the use of nuclear power would affect the flavour”
- “I would expect that the tomatoes that haven’t been exposed to harmful energy sources to thrive better and therefore look more natural in appearance and have a much better taste”

#### Tea

##### Speculative

- “I would expect those two products to be noticeably different because in my own experience loose leaf tea has better taste than tea that is in bags.”
- “Loose leaf tea always tastes better from past experience”
- “Loose leaf tea will look different because it's not crushed into a teabag and probably taste different”

**Reasoned**

- “I think keeping the leaves loose will give them a different flavour with air to breathe”

**Cookie****Descriptive/Tangential**

- “If the company does not pollute the environment, people will thank you and buy more the final product”
- “Cookie A the environment is polluted where as Cookie B comes from a factory where energy and pollution is minimised.”
- “What is much more eco friendly and the other is not”
- “Better for enviroment”

**Speculative**

- “using healthy and natural products the product will be better”
- “cookie B is made in a much more modern factory which translates into product quality”
- “If machinary is more efficient, then I would assume it is newer and more hi-tech meaning a better produced cookie potentially”

**Environment/Trace****Apple****Descriptive/Tangential**

- “Because the first farmer is using synthetic fertiliser and the second one uses no synthetic fertiliser”

**Speculative**

- “A lot of apples that use synthetic fertilizers have the skin of the apple taste more tough and waxy”

- “I think organic apples will look worse but have better taste than non organic apples.”
- “I expect organic fruit would have more exterior imperfections”
- “You can taste when synthetic fertilizers etc are used they give it a plastic flavour”

### **Reasoned**

- “Using chemicals in the growing process likely has an effect on the product in various ways, which can be both positive and/or negative”
- “Fertilisers and herbicides may change the flavour or the apple”
- “Synthetic fertilisers herbicides and pesticides have a different effectiveness of controlling pests and disease than natural methods. The less effective method will yield smaller, less healthy apples”
- “In my opinion, any chemistry used on fruit will certainly affect the taste and structure of the apple. Under natural conditions, the fruit will certainly taste much better than using it on chemistry”
- “Apple A has been prepared in a more natural way and so it is likely that it will have a better taste and texture as nothing was used on the apples which could have an effect on its natural taste”
- “The use of chemicals will help with uniformity of shape and perhaps affect the taste. The organic apples will be less uniform in shape.”
- “with No synthetic fertilisers in apple B and only controlling through natural methods i feel this is a key component is altering the flavour and texture (mainly) vs apple A.”

### ***Coffee Beans***

#### **Reasoned**

- “Different chemical treatment of the beans, which leads to different end product, with different taste.”
- “The soaking of the beans will likely remove some of the flavour and strip away parts of the beans characteristics”

### *Crisps*

#### **Descriptive/Tangential**

- “potato A has been made up using chemicals where as Potato B has been made up the organic way meaning a lot better for you.”

#### **Speculative**

- “Organic ingredients should provide a better taste”

#### **Reasoned**

- “Since they do not involve the use of any synthetic pesticides, herbicides or oil-based fertilisers, it is expected that the appearance is less appealing. In terms of flavour, I expect to be more tasty”
- “organic ingredients are normally not altered in terms of flavour, this is, they taste NATURAL, whereas the product A is made from non-organic it has a lot more chemicals, making the flavour not so natural and not so enjoyable too”
- “Because they are grown in a more 'natural' way, potatoes B might not look as nice, but would be tastier”

### **Human Welfare/No Trace**

#### *Banana*

#### **Descriptive/Tangential**

- “grown in different conditions”

#### **Speculative**

- “This is due to the fact that employees earn less and, as a result, they pay less to

work and care less about fruit.”

- “Banana B may be of worse quality as the workers are not being paid a lot and so may not put as much effort in to preparing them because of this”
- “People that are paid poor money don’t take the time needed to complete their work correctly which in turn would make the growth of the bananas poor”
- “I would expect that if the workers live in worse conditions, the quality of their work will be affected. As a consequence, the quality control around the products would supposedly be lower than another farm where they are well treated and compensated.”
- “The conditions of Banana B aren't as great as the conditions of Banana A - maybe pollution waste could effect the appearance and flavour.”

### ***Raisins***

#### **Speculative**

- “this is because the working conditions with Raisins B workers is going to affect their productivity and could affect the quality of the raisins”
- “Because if the workers are happier and better cared for they are more likely to care about their job and look for the best raisins to pick.”
- “The raisins produced by A would be better because the employer cares about their workers. When employers care employees work harder and produce better products.”
- “Comminting to improve the workers living amd working conditions should make the more motivated to excel in their work”

### ***Wine***

#### **Speculative**

- “The wine may be ‘better’ in the case of the benevolent employer, because the



workers are likely more motivated and engaged, which should lead to a higher quality product overall.”

- “Company caring for its workers equates to workers caring as to how they do their job eg pick the best quality for consumers”

## **Human Welfare/Trace**

### ***Grapes***

#### **Descriptive/Tangential**

- “One has been produced in below the level and one at a typical level.”

#### **Speculative**

- “B is less knowledgeable about grape farming than A so I assume his production is of lower quality overall.”

#### **Reasoned**

- “Being up to date with best farming techniques would naturally increase the quality of grapes overall.”
- “If the farmer has more knowledge of his product he would be able to produce a better quality product.”
- “Since the first farmer has a better grapes farming knowledge he can potentially make a better product”
- “As the farmer's understanding of grape-growing is below average, it means that he may not be able to predict all situations in which the grapes would go bad or undergo some changes”
- “If the farmer know all the production's chain he can help the company with the right tip such the correct time to harvest or use the fertilizer.”

### ***Coffee***

#### **Speculative**

- “This is from experience. Coffee A reminds me of Folgers or something like that. Coffee B reminds me of the roasts I get from my local coffee shop. Coffee B tastes superior in almost every way.”

### **Reasoned**

- “I assume that better understanding of coffee farming practices will lead to higher quality coffee which will have better flavour and texture.”
- “If the farmer has a better understanding of coffee farming practices, he will have more expertise and will know how to grow better coffee beans.”

## ***Chocolate***

### **Descriptive/Tangential**

- “They are differently produced”

### **Speculative**

- “If the farmer's understanding of good practices around the production of cocoa is lower, it can be expected that the production will be affected. It might even prevent risks in terms of dangerous chemicals, quality control, or respect of legal measures.”

### **Reasoned**

- “If the farmer has a better understanding of cocoa bean production they would be able to identify ways to improve their crops which could possibly lead to a better flavour.”
- “Increased knowledge would lead to better product I imagine, as any issues can be resolved better and more efficiently.”
- “The farmer which has a greater understanding of cocoa farming will be able to use their knowledge to produce a better bean”

## **Animal Welfare/No Trace**

**Egg****Descriptive/Tangential**

- “More humane practices re: male chicks”

**Speculative**

- “It would be total different taste texture and shape if the first eggs was from male chickens placed into a large hi speed grinder”
- “Looks of the egg will be exactly the same. I’ve got really funny taste buds and and pick up the slightly bit of difference in anything. I reckon i’d Be able to notice it”

**Tuna****Descriptive/Tangential**

- “animals and nature must be respected”

**Speculative**

- “No flavour of dolphins involved”
- “They would potentially be in eco friendly packaging etc”
- “The taste of tuna A will certainly be different from where the net kills it immediately after being caught (tuna B)”
- “The way the Tuna has been caught - option B there Is a longer time from death to being packaged up. Where as option A there is a slight delay in the death to packaging.”
- “too many preservatives”
- “Line caught better, probably for no reason other than my own satisfaction...”

**Reasoned**

- “I think tuna B will look better and have more tender texture because it will be not compressed together with other fishes in the net.”

- “Because Tuna A is caught using conventional nets, which traps and kills dolphins too and could cause stress to both. Whereas Tuna B is caught in Dolphin friendly nets and thereby not stressing both the Tuna and Dolphin”

### ***Chicken Nuggets***

#### **Descriptive/Tangential**

- “I eat only eat chicken raised in a open field, if I don't know how the chicken was raised I don't buy the product.”

#### **Speculative**

- “I would expect so since the chicken nugget B workers are not as strict with keeping with standard legislation. this means that they will not produce quality nuggets”
- “Company A only care about increasing profits which indicates they dont care much about the product quality etc”
- “If the second company wants to lower the standards of animal welfare legislation to increase revenue then it's possible that they may cut corners in the production of their product in order to save costs which could lead to them making a lower quality product compared to the first company.”
- “It is likely that the meat in chicken nuggets B will be of worse quality as they are concentrating more on increasing revenue”
- “The other food isn't as processed and better quality meat”
- “because they may be better looked after”
- “I think that when the animals suffer sometimes it affects the taste of the meat, since some of them may liberate some toxins before their death”
- “the texture can change because of the chickens welfare. The meat would be more tender. But since the meat would be all grinded, only trying i could tell if

it”

- “I am thinking that welfare of the animals in B is somewhat worse than in A. Perhaps more mass production. And I have read that this can make a difference to the quality. I have no real scientific evidence to this at hand.”

### **Animal Welfare/Trace**

#### ***Milk***

##### **Descriptive/Tangential**

- “Because the cows are living different lifestyles in each statement”
- “There were studies showing that confirming that milk from free-range and organic cows is more nutritious than that from cows kept indoors”
- “If the cow is outside more it will eat more grass. This will result in more nutritious milk.”

##### **Reasoned**

- “The ability for a cow to stay outside would improve her mental and physical health, and so improving the quality of the milk”
- “Not entirely sure, but think happy, well-fed cows might produce better quality milk.”
- “Having cows in poor living conditions would lead to increase stress and possible infections, this would have an affect on the quality of the milk.”
- “I think well being can improve the products, but perhaps this in the mind of the consumer who feels more satisfied with the animal welfare conditions.”
- “I would think that by ensuring your cow is happy they are going to produce a better quality of milk and therefore enhance the taste. A bit like a happy worker is a hard worker.”

#### ***Lobster***

**Descriptive/Tangential**

- “It was stunned before”

**Reasoned**

- “Stress from pain would lead to a chemical change that may impact flavour and texture.”
- “I would expect the one not experiencing much pain to taste nicer as it could have been more relaxed”
- “I have read that animals that have been killed in a painful way release toxins prior to dying, which affects the quality of their meat. Based on that knowledge I believe that Lobster A would probably have a harder to chew meat and probably taste slightly different than Lobster B”
- “Possibly the lobster would release adrenaline on pain, stunned will taste better as last minute shock not present”

***Bacon*****Descriptive/Tangential**

- “Appearance due to the way its been killed”
- “the meat of the animals we eat is what they eat”

**Speculative**

- “I would presume that an indoor reared pig would not grow as much as an outdoor reared pig. I believe the indoor reared pig would be fatter. I am not certain, but I believe the slaughtering method would have no effect on the colour, texture or flavour.”
- “When you let the blood come out of the pig by slitting its throat, the meat is less contaminated and typically tastes better.”

**Reasoned**

- “Because Bacon A's method of slaughtering has to be so stressful for the pig and is cruel. Bacon B would be less stressed in the manner of slaughtering as they are stunned first.”
- “You can taste the difference between free range meat and non free range. I think with a more violent slaughter you would also be able to taste the difference.”
- “The way the pigs are slaughtered may have a difference as one pig is left to bleed to death so it is dying slowly and the other is put to its misery quickly.”





**Appendix A.4: Scale Items Adapted From Ecoscale (Stone et al., 1995) for Trace****Lab Study**

1. Economic growth should take precedence over environmental considerations.
2. The earth's resources are infinite and should be used to the fullest to increase the human standard of living.
3. The amount of energy I use does not affect the environment to any significant degree.
4. Whenever no-one is looking, I litter.
5. There is nothing the average citizen can do to help stop environmental pollution.
6. My involvement in environmental activities today will help save the environment for future generations.
7. I would not carpool unless I was forced to. It is too inconvenient.
8. It is no use worrying about environmental issues: I can't do anything about them anyway.
9. I would describe myself as environmentally responsible.

## Appendix B: Questionnaires and Attention Checks Used in LFPQ Studies

### Questionnaires

**Table 27**

*Mindful Eating Questionnaire (MEQ) Items*

MEQ subscale	Item
Disinhibition	I stop eating when I'm full even when eating something I love.
	When a restaurant portion is too large, I stop eating when I'm full.
	When I eat at 'all you can eat' buffets, I tend to overeat.
	If there are leftovers that I like, I take a second helping even though I'm full.
	If there's good food at a party, I'll continue eating even after I'm full.
	When I'm eating one of my favourite foods, I don't recognize when I've had enough.
	When I'm at a restaurant, I can tell when the portion I've been served is too large for me.
	If it doesn't cost much more, I get the larger size food or drink regardless of how hungry I feel.
Awareness	I notice when there are subtle flavours in the foods I eat.
	Before I eat, I take a moment to appreciate the colours and smells of my food.
	I appreciate the way my food looks on my plate.
	When eating a pleasant meal, I notice if it makes me feel relaxed.
	I taste every bite of food that I eat.
	I notice when the food I eat affects my emotional state.
External Cues	I notice when foods and drinks are too sweet.
	I recognise when food advertisements make me want to eat.
	I notice when I'm eating from a dish of sweets just because it's there.
	I recognise when I'm eating and not hungry.
	I notice when just going into a cinema makes me want to eat sweets or popcorn.
	When I eat a big meal, I notice if it makes me feel heavy or sluggish.
	At a party where there is a lot of good food, I notice when it makes me want to eat more food than I should.
Emotional Response	When I'm sad I eat to feel better.
	When I'm feeling stressed at work, I'll go find something to eat.
	I have trouble not eating ice cream, cookies, or crisps if they're around the house.
	I snack without noticing that I am eating.

Distraction	My thoughts tend to wander while I am eating. I think about things I need to do while I am eating. I eat so quickly that I don't taste what I'm eating.
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*Note.* Participants rated each item on a 4-point Likert scale with response options *never/rarely, sometimes, often, and usually/always*.

**Table 28**

*Food Choice Questionnaire (FCQ) Items*

FCQ subscale	It is important to me that the food I eat on a typical day:
Health	Contains a lot of vitamins and minerals Keeps me healthy Is nutritious Is high in protein Is good for my skin/teeth/hair/nails etc Is high in fibre
Sensory Appeal	Smells nice Looks nice Has a pleasant texture Tastes good
Natural Content	Contains no additives Contains natural ingredients Contains no artificial ingredients
Weight Control	Is low in calories Helps me control my weight Is low in fat
Familiarity	Is what I usually eat Is familiar Is like the food I ate when I was a child
Environmental Protection	Has been produced in an environmentally friendly way Is packaged in an environmentally friendly way
Political Values	Comes from countries I approve of politically Comes from a country in which human rights are not violated Has the country of origin clearly marked Has been prepared in a way that does not conflict with my political values

*Note.* Participants rated each item on a 4-point Likert scale with response options *not at all important, a little important, moderately important, and very important*.

**Table 29***Ethical Self-Identity Scale Items*

Item
I think of myself as someone who is concerned about ethical issues
I think of myself as an ethical consumer

*Note.* Participants rated each item on a 7-point Likert scale with scale anchors -3 (*strongly disagree*) and 3 (*strongly agree*).

**Attention Checks*****Stimuli Validation Study***

One attention check resembled the ethicalness criterion question design; participants were shown Fairtrade labelled pancakes with the instruction to drag the VAS response slider all the way to the left to indicate a poor ethicalness rating. The other attention check resembled the question design used for all other criteria. Participants were shown an unlabelled image of apple tart alongside the same questions asked about all other unlabelled food items, but with an additional question asking how loud this food is as well as the instruction not to respond to this question.

***Pre-Screening Survey***

The attention checks were presented in a manner that resembled the presentation of the eight food items. One of the attention checks instructed participants to provide a specific response; the other check instructed participants to withhold a response. For the specific response attention check, participants were shown an image of pancakes, and *every hour* was added as a response option to the Likert scale measuring consumption frequency. To pass the check, participants were instructed to select *every hour* as their response to the consumption frequency criterion. For the attention check asking participants to withhold their response, participants were shown an image of apple tart.

An additional question was added to the recognition and consumption frequency questions; this additional question seemingly asked participants to indicate how loud this food was on a 7-point Likert scale. However, to pass the check, participants were instructed not to provide a response and to move on to the next question.

### ***Main study***

The attention check that was shown during the manipulation check featured an image of Fairtrade labelled pancakes and otherwise featured the same questions as were asked about the other food items but participants were instructed to drag the ethicalness response slider all the way to the left to indicate a poor ethics rating. Both of the attention checks that were included among the MEQ and FCQ items consisted of the instruction to select a specific response out of the usual response options for the respective questionnaire.

**Appendix C: List of Talks Given & Posters Presented****Talks Given**

- “Ethical-aesthetic value interaction in food”, American Society For Aesthetics Pacific Meeting, Online, March 2021 [pre-read]
- “Exploring the interaction between ethical and aesthetic value in food”, Understanding Value IX Conference, Online, December 2020
- “On the aesthetic (?) value of food”, Philosophy Postgraduate Seminar, Leeds, March 2020
- “Philosophical and psychological perspectives on the interaction of ethical and aesthetic value in food”, Psychology Postgraduate Research Conference, Leeds, October 2019
- “Exploring the interaction between ethical and aesthetic value in food”, Aesthetic Experience Today Conference, Prague, September 2019
- “Exploring the relationship between the moral and aesthetic value of food”, Philosophy Postgraduate Seminar, Leeds, March 2019

## Cookies and crisps described as ethically produced are perceived as tastier regardless of whether the production method is expected to noticeably affect the food

### The effect of ethical information on taste ratings

#### Introduction and hypotheses

- Philosophers have argued that ethical-gustatory value interaction occurs when a food's ethically valenced (that is, ethically 'good' or 'bad') means of production leave a perceivable trace in the food (Körtsmeyer, 2012)
- Psychologists have observed that various kinds of ethical information about food can affect its perceived taste quality (e.g. Sörqvist et al., 2015)
- But it's not clear whether ethical information that is associated with the occurrence of traces (e.g. organic production) affects taste ratings of food to a greater extent than ethical information that is not associated with the occurrence of traces (e.g. carbon footprint of a factory)

#### Hypotheses:

- Ethical information is associated with higher taste ratings compared to unethical information for two types of heavily processed, unhealthy foods (cookies and crisps)
- The difference in taste ratings between ethical and unethical information is greater in the case of (un)ethical information that is reliably associated with the occurrence of traces compared to (un)ethical information that is reliably associated with the absence of traces

#### Methods

- Lab study with 2x2 within-subject design (approved by the University of Leeds, School of Psychology Research Ethics Committee; reference number PSC-887)
- Participants (N = 27 (22 female), mean age = 21.15 (SD = 2.60)) were asked to taste and rate, on a 0-100 scale, two samples of cookies and two samples of crisps
- Each sample was accompanied by a short vignette describing the sample's means of production
- Vignettes were based on pilot work, and manipulated the factors *ethical status* (ethical; unethical) and *trace* (trace; no trace)

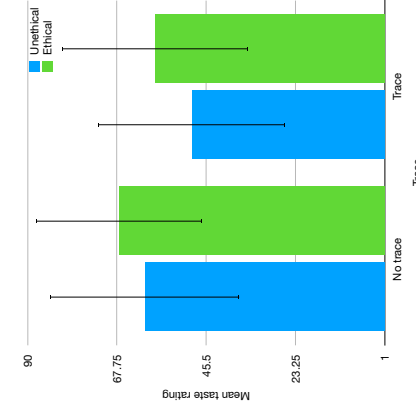
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#### Results

- The figure below shows the mean taste ratings in each experimental condition (including standard deviation error bars)
- Food samples in ethical conditions were rated as tastier ( $p < .05$ ) than samples in unethical conditions**
- The difference in taste ratings between ethical and unethical conditions was not significantly greater in trace conditions compared to no trace conditions**



#### Discussion

- The results of this study indicate that the perceived taste quality of cookies and crisps is affected by ethical information — this is consistent with previous research
- Ethical information was associated with higher taste ratings compared to unethical information
- This finding is significant as there had previously been inconsistent results regarding the direction of the effect of ethical information on taste ratings for cookies and crisps
- The effect of ethical information was not significantly stronger in trace conditions compared to no trace conditions
- This finding should be interpreted cautiously; it was not possible to statistically distinguish between the main effect of trace and the main effect of food type because data collection had to be aborted halfway through the study due to the outbreak of COVID-19
- The findings of this study should be further corroborated by additional empirical work involving larger and more diverse samples, conducted in less artificial environments, and using a greater variety of food samples and types of ethical information

People are **less likely** to think that **animal welfare** issues noticeably affect **food products** compared to other ethical issues

## Exploring the folk theory of *trace* in various contexts of morally relevant means of food production

### Introduction

- ▶ Underlying question: Does a food's ethical status affect its (perceived) taste quality?
- ▶ Philosophers have argued that ethical-gustatory value interaction occurs when a food's ethically valenced (that is, ethically 'good' or 'bad') means of production leave a perceivable *trace* in the food (Korsmeyer, 2012)
- ▶ Psychologists have observed that various kinds of ethical information about food can affect its perceived taste quality (e.g. Bratanova et al, 2015)
- ▶ However, the role that folk intuitions concerning *trace* might play in this empirical phenomenon has thus far remained under-explored

### Methods

- ▶ Online survey (mixed methods, within-subjects)
- ▶ Participants were presented with pairs of food descriptions
- ▶ Each pair contrasted two morally valenced means to produce the same type of food product
- ▶ Food descriptions implemented a 2x3 factorial design with factors *trace* (trace, e.g. organic; no trace, e.g. high wages for workers) and *moral domain* (environment; human welfare; animal welfare)
- ▶ For each pair, participants were asked to indicate whether they would expect there to be a noticeable difference between the two products, and to explain qualitatively why they thought so

### References

- Bratanova, B. et al. (2015). Savouring morality. Moral satisfaction renders food of ethical origin subjectively tastier. *Appetite*, 91, 137-149. doi: 10.1016/j.appet.2015.04.006
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### Results

- ▶ N = 100 (48 female), mean age = 32.78 (SD = 11.93)
- ▶ Preliminary data analysis suggests that the *trace* manipulation had an effect in all three moral domains
- ▶ However, the effect of *trace* is weaker in the *animal welfare* domain
- ▶ That is, participants were overall less likely to expect noticeable differences in the *trace-animal welfare* condition compared to the respective *trace* conditions in the moral domains *human welfare* and *environment*
- ▶ The table below shows the percentage of participants who *did* expect noticeable differences between the two food products for each experimental condition:

	Environment	Human welfare	Animal welfare
No Trace	25%	30%	23%
Trace	75%	66%	41%

### Discussion

- ▶ The findings of this study imply that people do not expect *just any* ethically valenced aspect of food production to make a noticeable difference to the food in question
- ▶ This lends some support to Korsmeyer's theory of the role of *trace* in ethical-gustatory value interaction
- ▶ However, the results raise the question why previous studies have found certain ethical information to affect taste evaluations despite most people in this study not associating the same information with the existence of a *trace*
- ▶ The apparent reluctance to expect traces in the *animal welfare* domain is an unexpected result
- ▶ Consequently, further research is required to explore in greater detail people's attitudes towards morally valenced aspects of the means of production of animal products