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Talking about Appearances: Experience, Evaluation, and Evidence in Discourse

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Talking about Appearances:
Experience, Evaluation, and Evidence in Discourse

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Abstract

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When we say that a dress *looks* blue, or that a musical instrument *sounds* off-key, or that a soup *smells* like it contains nutmeg, what do we communicate? With claims about appearances like these we seem to communicate both about the objective world and about our subjective experience. This comes out in two puzzling features of appearance claims.

Faultless disagreement arises when speakers disagree, and yet neither seems to be mistaken. Speakers may faultlessly disagree about appearances, for instance if one holds that a dress 'looks blue', and the other that it doesn't. There is a felt incompatibility here, just as with disagreement over objective claims. But assuming the speakers have different visual experiences of the dress, neither seems to be mistaken. Which appearance claim a speaker correctly makes depends not just on the objective world, but on their subjective experience as well. Faultless disagreement thus precludes viewing appearance claims as straightforwardly objective or subjective.

The *acquaintance inference* is the inference from an utterance to the conclusion that the speaker has relevant first-hand acquaintance. For instance, if a speaker says that the dress looks blue, one will infer that they have seen it. The utterance is infelicitous if they haven't. However, this inference is not an ordinary entailment. Just because I haven't seen the dress, doesn't mean it doesn't look blue. Again, this phenomenon precludes taking appearance claims to be straightforwardly objective or subjective.

I defend an *expressivist analysis* of appearance claims, on which they are used to express speakers' experiential states. On this view, faultless disagreement arises when speakers express incompatible experiential states, while nonetheless expressing experiential states they are in fact in. And the acquaintance inferences arises because when a speaker makes an appearance claim, one can infer that they are in an experiential state of the sort expressed by the utterance.

My analysis covers not only appearance language, but *experiential language* more generally, which encompasses both appearance language and the evaluative language of personal taste (e.g. 'tasty', 'interesting'). Indeed, both faultless disagreement and the acquaintance inference have been associated primarily with evaluative vocabulary. I argue, however, that these features are not especially associated with evaluative language. The language of personal taste falls in the intersection of the evaluative and the experiential; but these puzzling features are due to experientiality. The investigation of appearance language is crucial for identifying the source of these features, for it includes claims that are experiential but not evaluative.

Appearance discourse also offers insight into epistemic notions, like adequacy of evidence. This comes out in my investigation of the acquaintance inference with appearance claims, which examines behavior with no analogue in the more widely-discussed evaluative cases. Some appearance claims (e.g. 'Tom looks like he's cooking') require acquaintance with a specific stimulus (Tom), while others (e.g. 'Tom looks like he's well organized') just require acquaintance with something evidentially-relevant (like Tom's clutter-free office). Making use of experimental work, I argue that these two forms of acquaintance inference display our sensitivity, in discourse, to fine-grained evidential distinctions, for instance between transient properties (like cooking) and standing ones (like being well-organized). Appearance claims can thus serve to express our evidence. This integrates smoothly with the expressivist analysis I offer, as experience is a source of evidence about the world. Thus, in expressing experiential states, we can at the same time express our evidence.

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Chapter 1

Introduction

1.1 The challenge: objectivity and subjectivity in appearance talk

When we say that a dress *looks* blue, or that a musical instrument *sounds* off-key, or that a soup *smells* like it contains nutmeg, what do we communicate? With claims about appearances like these we seem to communicate both about the objective world and about our subjective experience.[1] This comes out in two puzzling features of appearance claims: faultless disagreement, and the acquaintance inference. Each of these poses a challenge to viewing appearance claims, like (1), either on the model of straightforwardly objective claims, as in (2-a), or on the model of explicitly subjective ones, as in (2-b).

(1) The soup smells like it contains nutmeg.

(2) a. The soup contains nutmeg.
    b. The soup smells to me like it contains nutmeg.

Subjective experience figures in simple unrelativized claims about appearances, like (1), in a unique way. Consider, first, cases of *faultless disagreement*, where speakers disagree, and yet neither seems to be mistaken. Speakers may faultlessly disagree about appearances, as in (3), for instance:

(3) A and B are both looking at a dress, but have different experiences of its color.

[1] Appearance claims, for my purposes, are those with the main verbs 'look', 'sound', 'smell', 'taste', 'feel', and 'seem'.

A: The dress looks blue.
B: No, it doesn't.

There is a felt incompatibility here, just as with disagreement over ordinary objective claims. But assuming the speakers have different visual experiences of the dress, neither seems to be mistaken. Which appearance claim a speaker correctly makes depends not just on the objective world, but on their subjective experience of it. Having a certain visual experience of the dress seems to secure each speaker's claim that the dress *looks* a certain color. This differs from the role of such experience when it comes to an objective claim, say that the dress *is* blue. If speakers disagree about whether the dress is blue, one of them is simply mistaken (assuming the dress is all one color) — though each might have decent grounds for their claim, given their visual experiences. Visual experiences often justify objective claims, but they do not make them faultless in the sense that they make appearance claims faultless.

To put it another way, there is a felt *sufficiency* of a certain visual experience, when it comes to making a corresponding appearance claim. Having a visual experience in which the dress looks blue to you is all you need to be faultless in saying that the dress *looks* blue. In this respect, the simple appearance claim is similar to an explicitly subjective claim, say that the dress looks blue *to you*. But faultless disagreement also precludes viewing appearance claims as equivalent with such subjective reports. For with those claims, there is no felt incompatibility, as we see by the infelicity (signaled by '#') of the expression of disagreement in (4).

(4) **A:** The dress looks blue to me.
\# **B:** No, it doesn't look blue to me.

Cases of faultless disagreement about appearances make vivid the felt sufficiency of a certain perceptual experience with respect to appearance claims. It's what makes it seem like both speakers are in a sense "getting things right." In this respect, the simple appearance claims are of a piece with the explicitly subjective ones. And yet, that is not enough to do away with the felt incompatibility between the appearance claims. In this respect, the simple appearance claims are of a piece with objective ones. The challenge posed by faultless disagreement is to make sense of the role of experience in appearance discourse in a way that allows for this seemingly two-faced behavior of simple unrelativized appearance claims.

The puzzling role of experience in appearance discourse also comes out through the *acquaintance inference*: the inference from an utterance to the conclusion that the speaker has some relevant first-hand acquaintance. For instance, if a speaker says that the dress looks blue, one will infer that they have seen it, as shown in (5). That this inference is licensed is brought out by the infelicity of the utterance when it's made clear that the speaker doesn't have the relevant acquaintance, as in (6).

(5) **A:** The dress looks blue. $\rightsquigarrow$ A has seen the dress.

(6) #The dress looks blue, but I haven't seen it.

Initially, the acquaintance inference may seem to support a view of appearance claims on which they are similar to explicitly subjective reports.

(7) **A:** The dress looks blue to me. $\rightsquigarrow$ A has seen the dress.

(8) #The dress looks blue to me, but I haven't seen it.

Indeed, if anything, the data points in (7)–(8) are even clearer than in the simple appearance ones, in (5)–(6). Both may be described as revealing a felt *necessity* of experience when it comes to making the corresponding claims. But the necessity of experience with unrelativized appearance claims is importantly different from the phenomenon with the explicitly subjective ones. Without the given experience, the subjective claims cannot be true. The dress can't look blue to me if I've never seen it. It is part of the truth-conditions of the subjective claim that someone has had the given visual experience. This isn't the case with the bare appearance claims. Just because I haven't seen the dress, doesn't mean it can't look blue, after all. In this respect, the appearance claims are similar to ordinary objective ones — where, for instance, the dress being blue doesn't depend on anyone seeing it. But again, the appearance claims are also distinct from the objective ones, in that with objective claims there is no felt necessity of a given kind of experience at all, as shown in (9), which is not infelicitous in the way that (8) is.

(9) The dress is blue, but I haven't seen it.

The challenge posed by the acquaintance inference, then, is to make sense of the felt necessity of experience when it comes to making simple appearance claims (making good on their difference with straightforwardly objec-

tive claims), but in a way that doesn't build that experience into the truth-conditions of the claims (making good on their difference with explicitly subjective claims).

Both faultless disagreement and the acquaintance inference thus bring out the unique behavior of simple appearance claims. They present challenges for assimilating these claims to either ordinary objective claims or explicitly subjective ones.

1.2 Preview of solution: expressing experiences

I address both challenges through an *expressivist analysis* of appearance claims. On this view, appearance claims are used to express speakers' experiential states, though they are not used to assert *that* one is in such states. Faultless disagreement then arises when speakers express incompatible experiential states, while nonetheless expressing experiential states they are in. And the acquaintance inferences arises because an expression of an experiential state is insincere if the speaker is not in fact in that state. Thus, when a speaker makes an appearance claim, one is licensed to infer that they are in an experiential state of the sort expressed by the utterance.

Appearance language is also of interest for reasons that go beyond its own puzzling features. Examination of appearance language is crucial for better understanding debates that have been going on in philosophy of language and linguistics surrounding another type of vocabulary, namely predicates of personal taste, like 'tasty' and 'interesting'. Predicates of personal taste are different from (at least some) appearance predicates in that they are *evaluative*. But they are similar to appearance predicates in the way they implicate subjective experience. Indeed, both faultless disagreement and the acquaintance inference have been associated in previous literature primarily with evaluative vocabulary, like predicates of personal taste, as well as aesthetic adjectives, like 'beautiful'. While this has led many to associate these features with evaluation, my approach suggests this to be misguided. The experiential expressivism that I develop accounts for faultless disagreement and the acquaintance inference with all *experiential language*: a class that encompasses both appearance language and the evaluative language of personal tastes. The language of personal taste falls in the intersection of the evaluative and the experiential; but these puzzling features are due to experientiality. The investigation of appearance language is crucial for identifying the source of these features, for it includes claims that are experiential but

not evaluative. At the same time, however, we can understand why evaluative language was a tempting foil in this area. Experiential reactions are often the basis of evaluative claims, and different such reactions in different people are often the basis for their differing evaluations.

Appearance discourse is also a window through which to examine how we communicate about our evidence. Many appearance claims, such as (10), communicate that one has appearance-based evidence for some state of affairs.

(10) **A:** John looks like he's tired.
$\rightsquigarrow$ A has visual evidence that John is tired.

This function of expressing our evidence also integrates smoothly with the expressivist analysis I offer. Experience is, after all, a source of evidence about the world. Thus, in expressing experiential states, we can at the same time express our evidence.

Overall, I present a view according to which the experiential meaning of both predicates of personal taste and appearance predicates is the source of their puzzling behavior, in the form of faultless disagreement and the acquaintance inference. Simple claims of both kinds serve to express features of speakers' experiences of the world. But the various roles that such experience plays for us — including as a basis of evaluation and as a source of evidence — have the result that this behavior can take on quite different appearances (if you will) in different cases. Variety in the use of appearance language and the language of personal taste is real; but experientiality provides a unifying core, on the basis of which that variety can be systematically understood.

1.3 Overview of chapters

I will turn next, in **Chapter 2** (adapted from Rudolph 2018), to a discussion focusing primarily on faultless disagreement. I will show that disagreement about appearances can have just the same markers of faultless disagreement as the better-known cases of disagreement about matters of personal taste. Moreover, I argue that the source of faultless disagreement in cases about both appearances and personal tastes is the role of experience in these areas of discourse, rather than anything special about evaluation. Thus, the main goal of this chapter is to unify the discussion of faultless disagreement across all cases involving *experiential language* — a category that includes both the

evaluative language of personal taste as well as the not necessarily evaluative language of appearances.

In addition to this, the discussion of faultless disagreement about appearances accomplishes two further goals towards developing my overall picture of appearance discourse. First, it includes an overview of faultless disagreement across a variety of appearance cases. This reveals appearance language to share features not only with the language of personal taste, but also with epistemic and comparative vocabulary. And second, it offers an opportunity to take stock of the theoretical options for accounting for faultless disagreement about both personal tastes and appearances.

In **Chapter 3** (adapted from Rudolph 2019a,b), I turn to the acquaintance inference with appearance claims. In simple cases, the acquaintance inferences of claims about personal tastes and appearances seem exactly parallel. However, once we recognize the greater complexity allowed by appearance reports, we see novel and challenging behavior emerge — behavior with no analogue in claims about personal tastes. For instance, some appearance claims, like (11), require acquaintance with a specific stimulus (in this case, Tom).

(11) Tom seems like he's cooking.

Others, however, like (12), just require acquaintance with something evidentially-relevant (like Tom's clutter-free office).

(12) Tom seems like he's well-organized.

Thus, this chapter connects the discussion of the acquaintance inference from philosophy and linguistics with a different debate in linguistics over the so-called "perceptual source" (or what said to be perceived) in copy raising constructions.[2] I show, with the help of experimental results, that the two main approaches to the perceptual source from previous literature are inadequate, and I propose a new one, which takes seriously the role of the appearance reports in question for communicating about our *perceptual evidence*. I also

[2]These are constructions, of which both (11) and (12) are examples, where the appearance verb has an embedded 'like'-clause that contains a pronoun (or "copy") that corefers with the matrix subject, as illustrated in (i).

(i) Tom seems like he's cooking.

show that the contrast between the acquaintance inferences in (11) and (12) displays our sensitivity, in discourse, to fine-grained evidential distinctions, for instance between transient properties (like cooking) and standing ones (like being well-organized).

The discussion in Chapter 3 remains neutral about the origins or source of the acquaintance inference. There, I take the acquaintance inference for granted, and explore its more fine-grained behavior: how the precise acquaintance requirements differ importantly across different appearance reports. In **Chapter 4**, I turn to the more foundational question of the source of the acquaintance inferences of appearance reports. After reviewing major past approaches, I opt for an expressivist analysis according to which appearance reports, and indeed all experiential claims, are used to express features of speakers' experiential states. Moreover, I hold that the expressivist analysis does the best holistic job of accounting for both the acquaintance inference and faultless disagreement.

Predicates of personal taste are not the only evaluative terms that have been proposed to give rise to faultless disagreement and the acquaintance inference. Aesthetic and moral language also arguably display them in some form. I thus conclude in **Chapter 5** by considering how the experiential approach I've developed for experiential language — which includes predicates of personal taste, but not all evaluative vocabulary — interacts with possible views about evaluative language more broadly.

Chapter 2

Experience, evaluation, and evidence in disagreement

Speakers disagree about things all the time. Remembering some event differently from you, I might claim that it took place on a Tuesday, while you claim it was a Wednesday. We might have no way to check who is right. But nothing about ordinary thought or language leads us to doubt that there is an objective truth of the matter. One of us is just getting things wrong.

Disagreements about matters of personal taste often feel different. After we've both tried some coconut cake, I might claim that it's tasty, while you claim that it's gross. If we're both basing these claims on our differing gustatory experiences of the cake, it's dissatisfying to insist that one of us is just getting things wrong. And yet there is a conflict. What I assert, you reject. We might "agree to disagree," but we do, nonetheless, disagree.

Let us call disagreements fitting this description cases of *faultless disagreement* (where this label is understood to carry no implications about how theoretically to account for such cases). Faultless disagreement makes it seem like truth in the domain in question is not absolute, but instead can vary from perspective to perspective. It's not just that we can't check whether the cake is in fact tasty; rather, we're inclined to say that from my perspective, it's true that it is, while from yours, it's false.

The same conclusion can be reached based on cases of *faultless retraction*, where a speaker must take back an earlier claim, which was nonetheless made without mistake. When I was a child, I insisted that coconut was gross. I now think it's delicious. While I take back my earlier claim, it's odd to say that I was mistaken in making it. After all, my gustatory experience of

coconut at the time was of just the right kind to support the claim that it's gross. It's natural to think that from my past perspective, it was true that it was gross, while from my current perspective, it's false.

I will call faultless disagreement and faultless retraction *relativist effects*, as both pull us away from an absolute view of truth about the claims involved. Do relativist effects in discourse about matters of personal taste show that truth about personal taste is not absolute? This question has been the subject of much debate by theorists in philosophy of language and linguistics in recent years. I do not weigh in on this debate in this chapter. Rather, I focus on the related but less-discussed question of what aspect of the meaning of the terms involved underlies their apparently relativist behavior. *What kind of difference in perspective are these terms sensitive to, when they give rise to faultless disagreement and retraction?*

There is a tendency to associate the seemingly variable truth of claims about personal taste with variation in speakers' evaluative standards.[1] But while these sorts of claims are certainly evaluative, this is not the only distinctive thing about them. They are, more specifically, evaluative claims made on the basis of a certain *experiential* response. Speakers' evaluations differ; but this, at least often, has its source in their different experiences of the stimulus in question. Can we isolate the effects of this experience-dependence, from effects due properly to evaluative differences? Luckily, the English language includes terms that allow us to do precisely this.

The term at the center of discussion about relativist effects in discourse about personal taste, 'tasty', is, after all, synonymous with the complex expression, 'tastes good'. To the extent that the former gives rise to relativist effects, the latter does too, and presumably for the very same reason. So, we may ask, are relativist effects with 'tastes good' due to something about 'tastes', something about 'good', or something about their combination?[2] On its own, the appearance verb, 'tastes', does no evaluative work. It can be combined with any number of adjectives (to form predicates like 'tastes

[1]Kölbel (2002) treats personal taste and aesthetic claims together in this respect. Lasersohn (2005) and MacFarlane (2014) don't commit to doing so, but wonder whether weightier evaluative terms, like aesthetic and moral predicates, also call for relativist treatment, recognizing that this would be a significant philosophical consequence. That something about evaluation is to blame for relativist effects with predicates of personal taste is also reinforced by a tradition of relativism about evaluative judgments about morality, found for example in Harman 1975.

[2]See MacFarlane 2014, p. 142.

vegan', 'tastes rotten', etc.), and the result is not an evaluative predicate, unless the adjective on its own is. We are thus led to the question of whether appearance predicates generally — predicates not only about how things taste, but also about how they look, smell, sound, and feel — give rise to relativist effects, even when not combined with any evaluative vocabulary.[3]

I have two main goals in this chapter. First, on the basis of relativist effects in discourse about appearances, I argue that such effects in discourse about evaluative matters of personal taste are due to the *experientiality* of the vocabulary in question, and not to anything special about evaluation. Second, I offer an overview of relativist effects in discourse about appearances, a domain so far under-discussed in the recent semantics literature surrounding relative truth. I do this by distinguishing varieties of faultless disagreement about appearances, showing how, depending on the case, it displays similar characteristics to faultless disagreement in other domains — not only in discourse about matters of taste, but also in discourse involving epistemic modal and comparative constructions.

The plan for this chapter is as follows. In §2.1, I show that relativist effects arise with appearance predicates, just as they do with the more familiar evaluative predicates of personal taste. In §2.2, I discuss how prominent approaches to these effects with predicates of personal taste may be extended to appearance predicates as well. The parallel behavior of appearance predicates and predicates of personal taste raises the possibility, discussed in §2.3, that relativist effects in all of these cases have their source in variation in subjective experience, rather than anything special about evaluation. This idea is bolstered by the existence of a distinctive class of *experiential predicates*, which includes both appearance predicates and predicates of personal taste. However, the hypothesis that all relativist effects with experiential predicates are due to variation in subjective experience requires some refinement, particularly once we recognize the variety of uses to which appearance predicates can be put, and the variety of situations in which faultless disagreement with them can arise. This variety is the subject of §2.4. In §2.4.1–2.4.2, I show that appearance predicates can give rise to faultless disagreement for reasons other than variation in qualitative experience, but still in a way that tracks differences in experience more broadly. Indeed, in these cases, appearance

[3]Recall that appearance predicates, for my purposes, are any predicates formed from a verb of sensory appearance ('tastes', 'looks', 'smells', 'sounds', 'feels', and 'seems'), together with a complement. Examples include the already-mentioned 'tastes good' and 'tastes vegan', as well as predicates like 'looks red' and 'sounds like a frog'.

predicates can give rise to faultless disagreement in part for reasons that are also responsible for faultless disagreement in other, non-experiential cases — more specifically, with epistemic and comparative language. Then, in §2.4.3, I argue that there is nonetheless a restricted class of experiential predicates, which includes predicates of personal taste, for which qualitative experiential variation remains the most plausible source of relativist effects. Thus, there is no need to look to anything special about evaluation to find the source of relativist effects in discourse about matters of personal taste.

2.1 Relativist effects in two domains

In this section, I show that appearance language gives rise to relativist effects. I do so by presenting relativist effects in the more widely-discussed domain of personal taste (§2.1.1), and showing that appearance language behaves in just the same way (§2.1.2).[4] This approach will allow us to see that appearance predicates carry the same interest as predicates of personal taste, as far as the debate about relative truth is concerned, while remaining neutral about what particular theoretical approach may best capture the behavior.

To emphasize: What I say about relativist effects in this chapter will not settle whether they in fact call for a relativist analysis, or whether they can instead be accounted for adequately within other approaches, such as contextualism,[5] expressivism,[6] or objectivism.[7,8] (In §2.2, I will review how these major approaches can account for the observed behavior.) I use the terms "faultless disagreement," "faultless retraction," and "relativist effects" to label the sort of behavior that, for better or for worse, has motivated theorists to adopt a relativist notion of truth.[9] The present investigation into relativist effects in discourse about appearances holds interest even for

[4]In discussing these effects with predicates of personal taste, I draw on previous literature, including: Kölbel 2004; Lasersohn 2005, 2016; Stephenson 2007; Egan 2010; MacFarlane 2014.

[5]See e.g. Pearson 2013; Plunkett and Sundell 2013; Sundell 2011; Cappelen and Hawthorne 2009; Stojanovic 2007; Glanzberg 2007; Zeman 2017; Zakkou 2019a,b.

[6]See discussion in MacFarlane 2014, §7.3.

[7]See e.g. Anthony 2016; Wyatt 2018.

[8]Stojanovic (2017a) gives a nice overview of the state of the debate.

[9]See Eriksson and Tiozzo 2016; Palmira 2015; MacFarlane 2014, Chapter 6 for discussion of different, more theory-laden, ways of characterizing the behavior. Though I am indebted to MacFarlane's work in this area, I disregard his advice to stop using the label "faultless disagreement" altogether. I believe that it remains useful for capturing an intuitively distinctive kind of disagreement.

those who reject relativism as the way to account for them; for there still remains the question of what the difference is between the expressions giving rise to these effects, as compared with ordinary context-sensitive or clearly objectivist expressions, with which (as we'll see shortly) no such effects arise. My interest in this chapter is in the sources of the discourse effects that lie behind the debates over relative truth and its alternatives.

2.1.1 Personal tastes

Consider the following dialogue, by now standard in discussions about predicates of personal taste:

(1) Aline and Bob have both tried the same cake. Aline enjoyed it, but Bob didn't.

a. **Aline:** This cake is tasty.

b. **Bob:** No, it's not tasty!

Aline and Bob seem to be in disagreement here: they disagree about whether the cake is tasty. And yet, this disagreement doesn't seem quite the same as another sort of disagreement Aline and Bob might have, over an ordinary factual matter, as in the following:

(2) a. **Aline:** This cake is vegan.

b. **Bob:** No, it's not vegan!

Here, Aline and Bob disagree about whether the cake is vegan. Furthermore, one of them must clearly be mistaken about what the cake is like. Either it's vegan or not, and once the truth of the matter comes out, one of them will have to admit that they were wrong. But the dispute about taste in (1) seems different. There, it's tempting to say that so long as each speaker is basing their claim sincerely on how they experience the cake, there's a sense in which neither is mistaken. The contrast with the purely factual case is brought out in the following:

(3) a. As far as its taste suggests, this cake is vegan; but maybe it isn't (actually) vegan.

b. ?As far as its taste suggests, this cake is tasty; but maybe it isn't (actually) tasty.

No matter one's evidence or experience, it is appropriate to express uncertainty about a purely factual matter, like the cake being vegan. By contrast,

given a certain experience of the cake, it becomes very odd to express uncertainty about whether the cake is tasty. This is the intuition behind the faultlessness side of faultless disagreement.[10]

Perhaps, then, in saying the cake is tasty, Aline is really just saying that it's tasty *to her*. And similarly, Bob is just saying that it isn't tasty *to him*. This would easily make sense of the intuition that neither is mistaken, and the contrast between (3-a) and (3-b). But now we risk losing the intuition that the exchange nonetheless involves a disagreement. For the dispute about taste in (1) is also different from an exchange in which each speaker explicitly relativizes their claim, as in the following:

(4) Context as in (1).

a. **Aline:** This cake is tasty to me.

b. #**Bob:** No, it's not tasty to me!

Two features distinguish our original disagreement about taste in (1) from this one. First, the disagreement about taste in (1) licenses explicit markers of denial, like 'No', in a way that the exchange in (4) does not (as indicated by the '#' mark). Second, this comes along with a difference in the attitudes it is appropriate for speakers to have towards the various claims in these two cases. Consider, for instance, what reactions are appropriate for an outside observer overhearing the dialogues. An observer overhearing (4) can easily take both Aline and Bob to be making accurate claims — indeed, she ought to think this, so long as she thinks both of them are being sincere. By contrast, an observer overhearing the dispute in (1), can't view both claims to be accurate: cannot take the cake both to be accurately described as 'tasty' and as 'not tasty'. This fills out the disagreement side of faultless disagreement.

Faultless disagreement about matters of personal taste is thus a phenomenon distinct from both purely factual disagreement, as in (2), and cases involving ordinary context-sensitive expressions (e.g. 'me'), as in (4). Purely factual cases involve disagreement, but not faultlessness; while explicitly rel-

[10]MacFarlane (2014, p. 4) gives the following assertion conditions for 'tasty' : "If you know first-hand how something tastes, call it 'tasty' just in case its flavor is pleasing to you, and 'not tasty' just in case its flavor is not pleasing to you." Group-based contextualists, like Pearson (2013), and objectivists, like Anthony (2016), somewhat downplay this entitlement, but the contrast between the previous two sentences stands. The contrast between (1-a) and (2-a) can be captured, even if we only take the oddness of claims like (3-b) to be present as a default.

ativized cases involve faultlessness, but not disagreement.

Faultless retraction of taste claims — where a speaker must take back a claim that was made faultlessly — can be characterized similarly. Here is a case adapted from MacFarlane 2014:

(5) a. It's 1975 and John is a child. He likes fish sticks.
John: Fish sticks are tasty.
b. It's 2010 and John is grown up. His tastes have changed and he no longer likes fish sticks.
John: I take it back, fish sticks aren't tasty.

The faultlessness here is essentially the same as what we saw above, in the case of interpersonal faultless disagreement. John's experience in 1975 is such that expression of uncertainty about the tastiness of the fish sticks would not have been appropriate, making his assertion in (5-a) faultless in a sense that has no analogue in a purely factual case. For instance, if John's parents chose to misinform him about the constitution of fish sticks in order to trick him into eating them, we might take his claim that fish sticks are vegetarian to have been reasonable in many ways. But still the contrast remains that uncertainty about whether the fish sticks are vegetarian is coherent in the face of all this evidence, in a way that uncertainty about whether they're tasty, given a certain experience, is not.

Perhaps, then, as a child, John really just meant that fish stick were tasty *to him then*. But this fails to make sense of the call for retraction at the later time.

(6) a. It's 1975 and John is a child. He likes fish sticks.
John: Fish sticks are tasty to me now.
b. It's 2010 and John is grown up. His tastes have changed and he no longer likes fish sticks.
John: I take it back, fish sticks aren't tasty to me now.

Just as in the case of disagreement, we can distinguish the retraction present in discourse about personal taste by two features. First, explicit retraction ('I take it back') is felicitous in (5) in a way that it isn't in the explicitly relativized case in (6). And, second, this comes along with a difference in what attitude adult John should take towards his childhood claims. As an adult, John should have no trouble viewing his sincere childhood claim in (6-a) to be accurate. By contrast, he cannot at the later time view his

childhood claim in (5-a) to be accurate.

2.1.2 Appearances

Now, we're ready to show that faultless disagreement and retraction also arise in discourse about appearances. Consider the following two examples of disagreement about appearances:[11]

(7) Alex and Briana are looking at the same dress, but have different experiences of its color.[12]

a. **Alex:** That dress looks blue and black.
b. **Briana:** No, it looks white and gold!

(8) Alex and Briana both tasted the same cake. Alex rarely eats vegan food and really notices when baked goods lack ingredients like butter and eggs; Briana is more used to vegan food, so their lack doesn't strike her as much.

a. **Alex:** That cake tastes vegan.
b. **Briana:** No, it doesn't taste vegan!

These are cases of faultless disagreement, just as identified in discourse about personal taste above. First, the disagreement side. In both cases, the linguistic denial, 'No', is felicitous, and an observer can't view both claims as accurate — can't view as accurate both that the dress looks blue and black, and that it looks white and gold (assuming, of course, that it's just two colors); or that the cake both tastes vegan and fails to taste vegan. And just as with the case of 'tasty' above, we can contrast the patterns of disagreement in (7) and (8) with what we would get in the nearby explicitly relativized cases, where the speakers make explicit to whom things appear the way they do.

(9) Context as in (7).

a. **Alex:** That dress looks blue and black to me.
b. #**Briana:** No, it looks white and gold to me![13]

[11] To avoid repetition, I just give cases with 'tastes' and 'looks' for now. But we could also easily find cases with 'smells', 'feels', 'sounds', and 'seems'; and my claims about appearance language are to be understood to apply to predicates formed with all of these verbs.

[12] This situation is similar to one many people experienced in early 2015; see, e.g. Wikipedia 2017.

In (9), not only is the explicit denial infelicitous, but an observer could also easily take both speakers' claims to be accurate. Thus, there is no disagreement in the sense we've identified in the disagreements about appearances in (7) and (8), as well as in the original disagreement about personal taste in (1).

Second, the faultlessness side. Just as with sincere assertions about personal taste, sincere assertions about appearances are faultless in a sense that has no analogue with purely factual assertions that are merely well-supported by evidence.

(10) a. As far as its taste suggests, this cake is vegan; but maybe it isn't (actually) vegan.

b. ?As far as its taste suggests, this cake tastes vegan; but maybe it doesn't (actually) taste vegan.

As noted above, any experience or evidence you like about the cake still allows for the felicitous expression of uncertainty about whether it's vegan, for example, as illustrated in (10-a) (a repetition of (3-a) above). By contrast, given a certain experience of the cake, the appearance claim — that it 'tastes vegan'— is not appropriately doubted. This is why the claim in (10-b) is odd in a way that (10-a) is not. Thus, the same features of faultlessness and disagreement that we found in disagreement about matters of personal taste are found in disagreement about appearance too.

Cases of faultless retraction with appearances are expected when how something appears to a speaker changes over time. Again, I offer two cases:

(11) a. Jana has just come inside from bright sunlight and looks at a jacket.
Jana: That jacket looks black.

b. Later, her eyes have adjusted to the light inside.
Jana: I take it back, the jacket looks blue.

(12) a. Admir tastes a cake and finds it dense and oily.

[13]Note that even the possibility of modification by prepositional phrases like 'to me' marks a commonality between taste predicates and appearance predicates, that they don't share with factual predicates:

(i) #That dress is blue and black to me.

I return to this in the following section.

Admir: This cake tastes vegan.

b. Admir's friend has by now given him samples of a variety of other cakes, teaching him to discern the taste of butter from oil. He tastes the original cake again, and with his more refined powers of discrimination detects some buttery flavor.
Admir: Never mind, this cake doesn't taste vegan.

The call for retraction is the same here as what we found in the case with personal taste in (5). In contrast to an explicitly relativized variant, the changes in experience expressed in (11) and (12) felicitously allow taking back the earlier claim. And this comes along with not being able to view both earlier and later claims to be accurate. Finally, the faultlessness is just as we saw in the discussion of faultless disagreement: given the speaker's experience at the time of assertion, the expression of uncertainty about the appearance claim would have been inappropriate (whereas it always remains appropriate with purely factual claims, however well-supported by the evidence they may be).

This empirical discussion shows that the relativist effects previously identified in discourse about matters of personal taste also show up in discourse about appearances, even in the absence of any evaluative expressions.[14] One upshot of this is that the range of relativist effects is broader than previously discussed, and that appearance language deserves a place alongside expressions like predicates of personal taste in the semantic debates over departures from traditional objectivist semantics.[15] In short, we may disagree faultlessly, and have to retract faultlessly-made claims, not only about whether things

[14]Some theorists, particularly in linguistics (e.g. Rett (2014)), understand evaluative expressions very broadly, to include all gradable adjectives. The idea is there's a sense in which, even in judging that someone is tall, say, one makes an evaluation, namely that their height is sufficient for them to count as 'tall'. So, to be clear: for my purposes, evaluative expressions are to be understood more narrowly, to include just those (such as predicates of personal taste, as well as moral and aesthetic predicates) that have valenced or normative meanings.

[15]Others have recognized a connection here too. Pearson (2013, p. 118) notes that first-hand experience effects (which I'll discuss in the next section, and much more in later chapters) with taste predicates also show up with 'seems', and Ninan (2014, p. 291) points out that this extends to all appearance verbs. Doran (2015) discusses the semantics of copy raising constructions, such as in (i), where the appearance verb has a 'like'-complement that contains a pronoun that corefers with the main subject.

(i) Tom looks like he's cooking.

are tasty, but also about *how* things taste, and how they look, feel, smell, and sound. To the extent that truth relativism is motivated for claims about personal tastes, it's equally motivated for claims about appearances; and to the extent that relativist effects with predicates of personal taste may be captured in other theoretical frameworks, the same goes for appearance language — as I review next, in §2.2. But investigation into relativist effects with appearance language holds interest beyond merely adding another class of expressions to the discussion. In §2.3 I will turn to the question of what relativist effects in appearance discourse might reveal about the sources of such effects in discourse more broadly.

2.2 Capturing relativist effects

The relativist effects discussed above have been taken to motivate semantic relativism applied to predicates of personal taste. Given that these effects

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I'll discuss a case of disagreement about appearances from her thesis in §2.4.1 below, and much more about copy raising cases in the following chapters. However, the variety of uses of appearance language that concern me in this chapter don't come out just by considering copy raising cases. For instance, no copy raising appearance report is equivalent to a claim using a predicate of personal taste. While (ii-a) and (ii-b) can be used equivalently, (ii-c) is not equivalent with either.

(ii) a. The cake is tasty.
b. The cake tastes good.
c. The cake tastes like it's good.

Brogaard (2013) considers and rejects the idea that 'seems' displays relativist behavior. She writes:

> Suppose we both hear on the radio that there will be a hurricane in our area. 'It seems that our home will be flooded,' I say. You reply that it does not seem that way. If we are equally rational, one of us has evidence not available to the other, for example, evidence that the radio station is notoriously unreliable. In this case, then, we disagree about facts about the situation. (Brogaard, 2013, p. 223)

This is inconclusive, however. First, it's not obvious in this case that if neither of us is irrational, then we must disagree about facts of the situation. But even granting that, disagreement about facts of the situation doesn't preclude faultless disagreement. This is clear from cases of faultless disagreement involving epistemic terms, like 'might' and 'probably'. I discuss the comparison between appearance and epistemic vocabulary in §2.4.1.

arise with appearance predicates as well, these predicates should also come in for scrutiny in the debate over relativism and its alternatives. The broad aim of this section is thus to situate appearance language in this debate. I begin, in §2.2.1, by sketching the sort of relativist analysis of taste predicates that the relativist effects have motivated, and showing how it could be extended cover appearance predicates as well. In §2.2.2, I step back and consider what general form an analysis must have if it's to capture faultless disagreement and faultless retraction. As I've already mentioned, relativism is not the only style of analysis that has this form (hence my emphasis that the label "relativist effect" does not commit me to semantic relativism). In §§2.2.3–2.2.5, I consider how contextualist, expressivist, and objectivist alternatives could also take this general form, and so could also capture the relativist effects with taste and appearance predicates. (In Chapter 4, I will break my neutrality amongst these approaches, giving reasons to think that a version of expressivism does the best holistic job of capturing what is puzzling and distinctive about this type of language.

2.2.1 Relativism

Relativism about predicates of personal taste involves two key claims.[16] First, the extensions of predicates of personal taste, like 'tasty', are sensitive to a standard of taste, s.[17]

(13) $[\![\text{tasty}]\!]^s = \lambda x.x$ is tasty according to s

The idea is that given different standards of taste, different things may count as 'tasty'.

To complete the relativist picture, we have to say what determines the standard of taste relevant for determining the truth of sentences uttered in contexts. This brings us to the second relativist claim: that the standard relevant for determining truth in context is determined by the context in which the claim is being assessed, and not by the context in which it was made. We assume that the standard of taste is determined broadly by the tastes of the agent of the context — so when we're dealing with a context in which a claim is being assessed, it's the assessor's tastes that go into determining the standard. The result is that if Bob doesn't enjoy the cake,

[16] My presentation of relativism follows MacFarlane 2014. For similar views, see also Kölbel 2002; Lasersohn 2005; Stephenson 2007; Egan 2010.

[17] For legibility, I leave out representation of sensitivity to a context, as well as other parameters plausibly needed for interpretation, like a world and time.

and so has a standard that doesn't count the cake tasty, then Aline's claim that the cake is tasty is false as assessed by him — no matter that she herself, who made the utterance, enjoyed the cake, and has a standard that does count it tasty.

This relativist account makes sense of faultless disagreement and faultless retraction if we make the further plausible claims that (a) when making an assertion, one should say things that are true as uttered and assessed at one's own present context, (b) one disagrees with claims that are false as assessed from one's own present context,[18] and (c) one should retract claims that are false as assessed from one's own present context.

The relativist analysis thus captures faultless disagreement and retraction in terms of the truth of the claims involving predicates of personal taste. Again, assuming your standard of taste is fixed broadly by the foods you enjoy and dislike, then your sincere taste claims are faultless in the sense that they are guaranteed to be *true* — at least as assessed from your own context. Note that this still leaves some room fallibility, given that not all of one's experiences of foods should be given equal weight in determining one's standard of taste. For instance, experiences one has right after brushing teeth should be discounted. And the cross-contextual relations of disagreement and retraction are captured by the difference in the truth of the taste claims, as assessed from a context other than the one in which it was uttered.

Extending the relativist analysis to appearance language will again require two main claims. First, appearance verbs, like 'tastes', 'looks', etc. are assigned semantic values that are sensitive to a standard, which I'll call an *experiential standard*, still labeled s.

(14) $\quad [\![\text{looks}]\!]^s = \lambda P.\lambda x.x$ looks to s as if $P(x)$

For present purposes, the idea is simply that just as claims about what's tasty have truth values relative to a standard, which can vary from person to person depending what foods they like, so claims about *how* things taste (look, etc.) have truth values relative to some standard, which can also vary across contexts, depending on the appearances objects present to people in their experience. For example, the dress may look white and gold according to Alex's experiential standard, because of the visual experience he has upon looking at it, but look blue and black according to Briana's, because of her

[18] And indeed, in a dispute like (1), both speakers' claims can't be assessed true from any one context, thus capturing the attitude of an observer discussed above.

different visual experience.

To complete the relativist picture, we add the second claim: that the standard relevant for determining the truth of an appearance claim is that of the context of assessment. So if the dress looks white and gold to Alex but not to Briana, then his claim that the dress looks white and gold is false, as assessed by her.

Given this framework, we can account for faultless disagreement and faultless retraction with appearances in the same way as for matters of taste. The faultlessness is due to each speaker making a true claim assessed at their own context, by their own experiential standard; the disagreement is due to each speaker making a claim that is false as assessed by the other; and retraction is required, when the speaker's earlier claim is false as assessed from their present context.

2.2.2 A recipe for relativist effects

Relativism accounts for the relativist effects in a kind of brute way. Of course, this will only be plausible when supplemented with a story about why it makes sense for certain kinds of expressions to give rise to relative truth, given their use in communication.[19] But semantic relativism is not the only view that can account for the relativist effects. Many theorists with other more traditional approaches have been resourceful in arguing that cases of faultless disagreement (and, to a lesser extent, faultless retraction), like those I discussed in §2.1, don't in fact lend support to relativism.[20] Before considering how some of these approaches could extend to appearance language in the following subsections, it will be useful to pause and think about what general form a theory must take, if it's to be able to say something about the relativist effects that isn't completely dismissive.[21]

[19]Such stories are given, for example, in MacFarlane 2014, Chapter 12 and Lasersohn 2016, Chapter 11.

[20]See Stojanovic 2007 and Palmira 2015, among others.

[21]For example, Glanzberg (2007) is inclined to say that the apparently conflicting intuitions of disagreement and faultlessness just never arise together. But this is unsatisfactory, given how compelling certain cases have seemed to so many people. And, as I'll discuss in the next subsection, contextualist views like Glanzberg's do have resources to capture faultless disagreement, as I've characterized it above. Wyatt (2018) distinguishes between "corrective" and "upholding" approaches to faultless disagreement, where the former, but not the latter, seek to explain away the mere appearance of faultless disagreement. But on the way I am thinking about the phenomenon, faultless disagreement is just an empirical data point, and so any adequate theory must be able to "uphold" it.

Generally, relativist effects with predicates of personal taste and appearance predicates motivate an analysis that vindicates the following two claims.

(i) The acceptability of claims with these predicates depends on experience.

(ii) The relevant experience for determining this acceptability is not simply the speaker's.

Part (i) of this characterization captures the faultlessness intuitions discussed in §2.1, while (ii) captures the disagreement and retraction intuitions.

Alternative analyses of the target expressions can now be approached by considering how they all take this general form, though in different ways. Relativism, for instance, fulfills (i) by taking the truth of the claims in question to vary depending on a standard that is determined broadly by how a subject experiences things. And it fulfills (ii) by taking it to be the assessor's standard, and not the speaker's, that is relevant for determining truth in context.

In the next three subsections, I will show how contextualism, expressivism, and objectivism can also take this general form, and so may also be able to adequately account for the relativist effects. And I'll discuss how such approaches, previously developed for predicates of personal taste, could be extended to appearance predicates.

2.2.3 Contextualism

Contextualist approaches to predicates of personal taste broadly aim to subsume them into the class of more familiar context-sensitive expressions, like 'local' or 'now'. A simple solipsistic version of contextualism just takes 'The cake is tasty' and 'The cake is tasty to me' to mean the same thing, given the same context of utterance. This kind of view fulfills (i), and so accounts for the faultlessness of sincere claims of personal taste. It does so by taking the claims to be about the tastes of the speaker. However, the bane of this kind of contextualism is that it faces a serious challenge from disagreement and retraction — or we might say generally, cross-contextual differences in assessment. After all, if you say you're at a local bar and I know you're in a different city from me, I won't take myself to disagree with you because you're at a bar that isn't local to me. Or if I say 'It's dark now' at 10 pm, I won't feel any pressure to retract my claim the next morning at 8 am when it isn't dark anymore. The problem for contextualism is that it seems to

have the result that the apparently conflicting taste claims made by different people, or by the same person at different times, are not in fact incompatible; and so it's mysterious why we should feel the intuitions of disagreement or retraction. After all, we feel no such intuitions in the cases involving contextual variation in location or time.

Contextualists have been resourceful in addressing this problem with cross-contextual assessment, however. There have been two main approaches, which involve different ways of satisfying part (ii) of the general characterization from §2.2.2 — that is, different ways of making it such that it's not just the experiences of the speaker that matter for the acceptability of claims of personal taste. I will briefly outline each approach and consider how it could apply to appearance claims.

First, the contextualist can keep the solipsistic content for taste claims, and so keep the view that the truth of such claims depends only on the tastes of the speaker, but hold that the acceptability of the claim to another person, or to the same person at a later time, depends on more than just its truth. On this approach, we get cases of disagreement and retraction without incompatible content. In an idea that traces back to some early versions of non-cognitivism in metaethics (e.g. Stevenson 1937), the disagreement between speakers over matters of taste could be due to differences in attitudes other than beliefs literally expressed by their claims (Huvenes, 2014). Indeed, such attitudes are often enough to make speakers feel like they're disagreeing, as in (15).

(15) Aline and Bob have both tried the same cake. Aline enjoyed it, but Bob didn't.

a. **Aline:** I like this cake.
b. **Bob:** Seriously?! I don't like it at all!

Though the beliefs literally expressed here do not conflict, there is a disagreement in some sense. Thus, the first part of this strategy for saving disagreement for contextualists, employed for instance in Sundell 2011, is to explain the sense of conflict as disagreement in attitude something like in (15). However, this can't be the end of the story, because disagreement in attitude like this isn't generally enough to license explicit markers of denial, like 'No' or 'You're wrong', and these are perfectly felicitous in disagreement

about taste.[22]

(16) a. **Aline:** I like this cake.
b. #**Bob:** You're wrong, I don't like it at all!

So the second part of this line of defense is to account for the felicity of linguistic denial by recourse to "metalinguistic disagreement" (see e.g. Plunkett and Sundell 2013). Such disagreement is due to divergences in the use of language, rather than to incompatible propositional contents literally expressed in the disagreement, and yet nonetheless systematically licenses linguistic denial. For example, one kind of metalinguistic disagreement discussed by Sundell (2011) is "manner disagreement," as in (17), where we see the felicitous use of denial 'No' to express disagreement.

(17) a. Aman won the game 40-zero.
b. No, he won 40-*love*. (Sundell, 2011, p. 276)

The particular kind of metalinguistic disagreement that Sundell takes to be realized in many disputes about taste is "context disagreement."[23] The idea can be illustrated by distinguishing two ways we might disagree over, for example, whether Bianca is rich.[24]

(18) a. Bianca is rich.
b. No, she isn't rich.

This dispute could be driven by our differing beliefs about how much money Bianca has, even if we broadly agree on how much money someone has to have to count as rich. In this case, we would have ordinary nonmetalinguisic disagreement over incompatible contents. But, presuming 'rich' is a context-sensitive predicate, we could also be having a different sort of dispute. We might both know how much money Bianca has, but disagree about what counts as rich — that is, we might disagree about how the contextually determined standard for richness should be set in this case. Given the standard we each have in mind, we might both have true beliefs about whether she's 'rich'. But we disagree, because each of us thinks the other's standard is

[22]See also López de Sa 2015 on the difference between accounting for the existence of disagreement, and for the expression of (existent) disagreement.

[23]Silk (2016) takes a similar approach, though he objects to the term "metalinguistic" (see p. 164, note 9).

[24]Based on cases discussed in Barker 2002; Richard 2004, among others.

not the right one to use. We disagree about what linguistic context to be in. Sundell (2011) holds that something similar is going on in many disputes about taste.[25] Both speakers could be saying something true according to their own standards (and self-aware disputants can even acknowledge that), but they disagree over what is the right standard to have.

Notice that the kind of negotiation that would likely take place in context disagreement looks very similar to what the relativist predicts. In both cases, the speakers would be trying, as far as possible, to change the standard of their interlocutor: to change their tastes, or change what they like and dislike. It's just that in the contextualist's case, but not the relativist's, we start out with two claims that can both be accurate, even as assessed from a single context.[26] So the choice between this contextualist picture and the relativist one seems to rest on our judgment about the possible joint accuracy (as assessed from a single context) of apparently conflicting taste claims — a choice that I think must be made at least in part based on general theoretical considerations, for instance, about the role of truth in norms governing language use, and not just intuitions about cases.

The metalinguistic move is quite powerful for the contextualist. Although it has mainly been used to save disagreement, it can plausibly save retrac-

[25]See also Barker 2013. Of course, in disputes about taste, the contextual feature that is disputed is not just the cutoff for the application of the gradable adjective — or at least it doesn't have to be. We can see this from the fact that faultless disagreement about taste can persist over comparative claims, as in (i); whereas disagreement in (ii) cannot be faultless.

(i) **May be faultless**

a. The chocolate cake is tastier than the carrot cake.
b. No, the carrot cake is tastier than the chocolate cake.

(ii) **Cannot be faultless**

a. Bianca is richer than Carl.
b. No, Carl is richer than Bianca.

This is to say that the ordering of items on a scale of tastiness must vary across contexts. This is accounted for as "mapping subjectivity" in Fleisher 2013, and "perspective-sensitivity" in Silk 2016.

[26]We might ask why anyone should be motivated to change someone's mind away from something they recognize is true. But surely we do this all the time. You don't like Sam and I want you to come to like him. It's not that I think your claim that you don't like him isn't true, but I might still have lots of reason to try to get you to a perspective from which it no longer would be.

tion as well — thus securing all the relativist effects within a non-relativist framework. The metalinguistic view of retraction would hold that one should retract an earlier claim, if one now has a standard that makes it false, even if one recognizes that it was true, given the context in which it was originally made. In effect, retraction becomes a way to signal that one no longer endorses the standard that one had at the time of the original claim, just as disagreeing with someone can signal that one does not endorse their standard.

This contextualist approach could also be applied to appearance language. We would take the truth of appearance claims to depend only on the experiences of the speaker, but make sense of both disagreement and retraction as targeting the experiential standard at work in the original utterance. So, for example, Alex and Briana, arguing in (7) over what colors the dress looks to be, should be understood to argue about what experiential standard is the appropriate one to have. And when Jana retracts her claim, in (11), that the dress looks black, after her eyes are adjusted, she's signaling that she no longer has an experiential standard that would make that true.

Before moving on to the second main contextualist approach, I would like to flag a potential difference in how this framework applies to appearance language, compared with the language of personal taste. In making sense of disagreement about personal taste, we talked of disagreement in attitude and negotiation of standards. These ideas don't as clearly come up in disagreement about appearances. After all, if the dress looks white and gold to me, there seems to be little hope of you negotiating me over to seeing it otherwise. But I don't think we should take negotiation to be a necessary feature of metalinguistic disagreement. There can be true disagreement over standards, not only in the appearance cases, but also in the taste cases, where there's no room to bring the other over to one's standard.[27] Moreover, once we consider appearance cases that don't just have to do with the colors things look to be, a kind of negotiation often reemerges. When Aline and Bob disagree over whether the cake tastes vegan, for example, we could easily see them drawing each other's attention to various features of the cake's

[27]See Egan 2010 on the importance of distinguishing the fruitfulness of a dispute from its being a true case of disagreement (though he's working in a different framework). Kennedy and Willer (2016) also helpfully distinguish between decisions about the use of terms that can appropriately be settled by stipulation (e.g. what standard to use for the application of the term 'rich') and those that cannot (e.g. whether to count something 'tasty'). While this is an important distinction, disagreement over both kinds of cases can be accounted for within the same general approach.

taste, thus trying to bring the other around to experiencing it in a different way (to having a different experiential standard) — just as someone trying to convince a friend that some new food is tasty might try to get them to experience it in different ways.

Group contextualism is a second style of contextualism that has been offered for predicates of personal taste. On this approach, taken by Pearson (2013) and (partially) by Cappelen and Hawthorne (2009), the truth of claims about personal taste doesn't just depend on the tastes of the speaker, but on the tastes of some group appropriately related to the speaker. It thus straightforwardly fulfills part (ii) of our recipe for relativist effects, namely, not having the acceptability of the claims depend solely on the experiences of the speaker. This allows for a more standard account of cross-contextual assessments than the solipsistic contextualism plus metalinguistic disagreement package discussed above. Here, the speakers' claims in cases of disagreement are straightforwardly incompatible, so long as the relevant groups overlap. And similarly, in cases of retraction (though the authors mentioned don't discuss it), the earlier and later claims will be incompatible for the same reason.

In giving this account of cross-contextual assessment, group contextualists face a renewed challenge with faultlessness, or part (i) of the recipe. Why should my experiences secure my taste claim, if the claim depends on tastes other my own? Pearson (2013) addresses this worry by arguing that one's experiences are really only sufficient in this way when they're normal for the group — thus somewhat restricting the scope of faultlessness. (In this respect, group contextualism is similar to objectivism, which I'll discuss below in §2.2.5.) I will not attempt to adjudicate this issue here, since it doesn't bear directly on the project of bringing appearance language onto the scene. But in ultimately deciding on an analysis of these expressions, it will have to be carefully considered.

Group contextualism can quite straightforwardly be extended from predicates like 'tasty' to ones like 'tastes vegan' or 'looks blue'. Appearance claims involving the latter will be taken to be true or false depending on the perceptual experiences of some group of individuals appropriately related to the speaker. In many cases, this approach seems if anything more plausible for appearance language than the language of personal taste. For instance, it's quite plausible that when we talk about appearances, we mean to be implicating those that have broadly similar perceptual capacities as we do, so that things would appear basically the same to them, if in the same cir-

cumstances.[28] For instance, in considering what colors things look to be, we are not very inclined to take there to be genuine disagreement between color-blind people and people with normal color vision. And the group contextualist can easily capture this by taking the relevant groups in these cases to be disjoint.

Some theorists, like Glanzberg (2007); Stephenson (2007); Cappelen and Hawthorne (2009), make room for some mix of contextualist (and, in Stephenson's case, relativist) approaches: taking some taste claims to implicate only the speaker, some a group, still others the assessor. Such a view can be applied to appearance language as easily as the non-mixed views can. This flexible approach can seem appealing, given that it readily allows for a kind of variety that does seem to be present in discourse about personal taste and appearances.[29] However, this is less of a theory and more of a statement that "anything goes" — which threatens both not to be explanatory, and to overgenerate the sorts of interpretations that should be available. (This is a main criticism that Pearson (2013) levels against Stephenson (2007), for instance.)

2.2.4 Expressivism

Expressivism about some area of discourse takes the meaning of claims in that domain to be explained, in the first instance, not by their truth-conditional content, but rather by the state of mind that speakers express with those claims. So, for instance, metaethical expressivism takes the meaning of moral claims to be explained primarily through their function of expressing speakers' states of mind, such as approval or disapproval, or of accepting some system of norms, or of planning to do certain things in certain hypothetical scenarios.[30] Extended to the language of personal taste, one could similarly take claims about tastiness and so on, in the first instance, to express one's state of mind of having a certain standard of taste. And extended further to appearance language, one could take appearance claims to express one's

[28] A similar view is also defended by Moltmann (2010), based on the generic 'one', used for instance in:

(i) One can see the painting from the entrance.

[29] Stojanovic (2007) points out how different possible acceptable continuations of disputes about personal taste show that in some cases, the speaker seems only to be reporting on their own experiences, while in others, they also seem to place demands on their interlocutors.

[30] See e.g. Ayer 1936; Blackburn 1998; Gibbard 1990, 2003.

state of mind of having a certain experiential standard, as introduced above in §2.2.1. There are number of ways to develop this view further, depending on how one understands the experiential standards in question (in Chapter 4, for instance, I'll consider it both in terms of what experiences one actually has, and in terms of what experiences one is *disposed* to have).

Expressivism is in a good position to fulfill part (i) of the recipe for relativist effects. If what experiential standard one has is a function of how one experiences (or is disposed to experience) various stimuli, and if experiential claims express one's possession of a certain experiential standard, then we can see why having certain experiences oneself would be enough to secure the claims in question so as to make them faultless.[31] Solipsistic contextualism took taste an appearance claims to assert that one has an experience of a certain kind. Expressivism rejects this, but instead takes the claims to express something about one's experience without building this into the literal content of the claim. But this is just as good for explaining the sense of faultlessness that attaches to sincere experiential claims.[32]

[31]Indeed, MacFarlane (2014, §7.3), in discussing expressivism about personal tastes on the model of Gibbard (2003)'s plan expressivism, notes that a main difference between this view and relativism is that the expressivist takes believing that something is tasty and liking its taste to be the very same state of mind, whereas the relativist allows for a gap between them. The lack of gap for the expressivist makes faultlessness automatic, though of course, the relativist can capture it as well. A close tie between having certain experiences and being able to sincerely make an experiential claim is also very relevant for thinking about the acquaintance inference, as I'll return to in Chapter 4. See also Franzén 2018.

[32]Some of the theorists mentioned in connection to contextualism in §2.2.3 have views that are very close to expressivism. For instance, one can take "negotiating tastes" (Barker, 2013), say, to amount to expressing one's adoption of certain standards, and disputes about taste to aim at coordinating on such non-factual parameters. Indeed, the expressivist account of vague terms in MacFarlane 2016 draws on the approach in Barker 2002, but emphasizes that the negotiation of standards must be viewed not as reducing uncertainty about the world, but rather as reducing indecision about what standard to adopt. Similarly, there is an expressivist view of taste discourse based on ideas in Barker 2013, where negotiation of tastes likewise doesn't reduce worldly uncertainty but rather coordinates on experiential reactions. Interestingly, though, the idea of "indecision" — apt when it comes to understanding various options being open for the thresholds of vague terms like 'rich' or 'tall' — is less apt when it comes to understanding various options for ordering items according to tastiness being open. This is, I believe, related to the distinction between matters that can be settled by stipulation and those that cannot (Kennedy and Willer, 2016) — the latter are the cases where one's assessment bears an important tie to experience.

Moreover, it puts the expressivist in a different and potentially better position when it comes to fulfilling part (ii) of our recipe. We saw that the solipsistic contextualist had to appeal to disagreement other than between literally expressed contents — as the literally expressed contents in dialogues like (1) and (7) are not in fact in conflict according to the contextualist. So they instead appeal to disagreement in other attitudes. The expressivist can just directly explain disagreement in those terms. Experiential standards can be in conflict (just as planning states can be, for Gibbard). And speakers don't accept an experiential standard just because their interlocutor possesses and sincerely expresses it.

2.2.5 Objectivism

An objectivist approach to predicates of personal taste assimilates them to ordinary factual predicates, whose meanings and extensions are invariant across different standards or perspectives. Such an approach easily fulfills part (ii) of the general characterization from §2.2.2, and so, like group contextualism, easily accounts for disagreement and retraction. Its challenge is with faultlessness and part (i) of the recipe for relativist effects. In what sense, for an objectivist, does the acceptability of taste claims depend crucially on experience? Like group contextualists, objectivists tend to downplay this dependence. Still, to capture the contrast between taste predicates and more obviously factual ones, like 'vegan', the objectivist should be able to say something about why experience seems to play a more central role in the use of the former than the latter. Here, the objectivist can simply claim an epistemic role for experience (Wyatt, 2018). But of course, experience can play an epistemic role in warranting claims that things have more obviously factual properties, too. The objectivist should say something to explain why we take the link to be tighter between a certain kind of experience and the possession of the properties denoted by predicates of taste. One option here, suggested by the discussion in Ninan 2014, is that not only does a certain experience give good evidence for the taste claim, but this kind of evidence is also necessary for being able to warrantedly make the claim. This necessity is suggested by the oddness of the following.

(19) #This cake is tasty, but I haven't tried it.

Why there should be this special evidential link between experience and properties like tastiness is an open question. But to the extent that it is consistent with the properties nonetheless being factual, this link may go some

way to explaining, as part of an objectivist picture, why there's nonetheless a contrast between the role for experience with respect to discourse about personal taste, as opposed to more prosaically factual discourse. The idea is that if there's a certain kind of evidence that is necessary for making a certain claim, then having that evidence makes you faultless in the sense illustrated in §2.1.[33] This makes it possible for an objectivist about matters of personal taste to fulfill part (i) in the characterization of what a theory must be like to capture relativist effects.[34]

An objectivist view of this kind could equally be applied to appearance predicates. Moreover, we see the same motivation showing up in this domain, for the necessity of experience in making the relevant kind of claim.

(20) a. #This cake tastes vegan, but I haven't tried it.
b. #This dress looks blue and black, but I haven't seen it.

Thus, this behavior could equally figure in an epistemic account of faultlessness about appearances, as it could in such an account about matters of personal taste. Again, many details remain to be worked out. But my goal here is simply to show that the same styles of account can make sense of relativist effects in both domains, and, more generally, to suggest that we should view appearance language as within the scope of the semantic debates that have so far largely focused on predicates of personal taste.

2.3 Experiential language

In §2.1, I illustrated relativist effects with appearance language, even in the absence of any evaluative language. This is relevant to the issue, raised in the introduction, about the source of relativist effects with predicates of personal taste. As noted there, the synonymy of 'tasty' and 'tastes good' raises the question, posed by MacFarlane (2014), about whether we should

[33]How do we make the leap from necessity, which is what is illustrated in (19), to the felt sufficiency that lies behind the faultlessness intuition? One idea is that not only is the experience a necessary piece of evidence, but that it trumps (at least as a default) other sources of evidence about the properties in question.

[34]Anthony (2016) also defends an objectivist view, and argues that faultlessness ought not to be a target for semantic theorizing at all. However, his argument depends on a substantially different understanding of faultlessness from the one I'm relying on here, and one that I think doesn't quite get at the heart of the issue concerning faultless disagreement. More specifically, he takes faultlessness to require that the two speakers don't view each other as mistaken, while my characterization allows this.

locate the source of relativist effects with 'tastes good' in something about 'tastes', something about 'good', or something about their combination. The cases of faultless disagreement and faultless retraction with predicates like 'tastes vegan' and 'looks white and gold' show that appearance language on its own gives rise to these effects — since the effects are clearly not present with factual predicates like 'vegan' and 'white and gold' on their own. Thus, it's an open possibility that relativist effects with both predicates of personal taste and appearance predicates have nothing to do with evaluation, and everything to do with the role of subjective experience in their interpretation or use.

Bylinina (2017) and Stojanovic (2017b) identify a class of *experiential predicates*. These predicates are interpreted relative to an experiencer argument, which may be left implicit, as in (21-a), or made explicit in an experiencer prepositional phrase headed by 'to' or 'for', as in (21-b).

(21) a. This cake is tasty.
b. This cake is tasty to/for Sam.

I remain neutral about the precise semantic contribution of experiencer prepositional phrases, and whether we should in fact take there to an implicit experiencer argument in sentences like (21-a). The key point I wish to take from these theorists is that predicates of personal taste are experiential, whereas other evaluative predicates, for example moral ones, are not.

Taking the licensing of experiencer prepositional phrases as a diagnostic for experiential predicates, it's clear that appearance predicates are experiential as well. Indeed, the contrast between bare cases, like (22-a), and relativized ones, like (22-b), was key in the illustration of relativist effects in the previous section.

(22) a. That cake tastes vegan.
b. That cake tastes vegan to Sam.

Bylinina further observes that experiential predicates give rise to a first-hand experience requirement, or acquaintance inference, in utterances of unembedded sentences. This requirement comes out in the observation that utterances as in (23) are deviant.

(23) #This cake is tasty, but I've never tasted it.

Precisely the same requirement is present with appearance predicates, something that is noted in previous discussion of the requirement in Pearson 2013 and Ninan 2014.[35]

(24) a. #That cake tastes vegan, but I've never tasted it.
b. #That dress looks white, but I've never seen it.

Not only do predicates of personal taste and appearance predicates both give rise to relativist effects, but both are also experiential. Might the relativist effects then be traceable to the role of experience in the use of these predicates? Indeed, it seems fairly intuitive that these predicates give rise to faultless disagreement and faultless retraction precisely because speakers' experiences differ, and can change over time. Thus, I would like to frame the following:

> **Subjective experience hypothesis** Relativist effects with experiential predicates are due to variation in subjective experience across perspectives.

If the subjective experience hypothesis is correct, then when faultless disagreement arises with predicates of personal taste and appearance predicates, it's because the speakers have different subjective experiences of the stimulus; and when faultless retraction arises with these predicates, it's because the speaker's subjective experience of the stimulus has changed over time. This would not rule out that the perspectives also differ in other ways. For instance, based on different subjective experiences, speakers may also be led to different evaluations of some subject matter. The key point of the hypothesis, however, is that the relativist effects with experiential predicates are explained by the difference in experience. On this picture, experiential and evaluative predicates form distinct but overlapping classes, with predicates of personal taste falling into the intersection. According to the subjective experience hypothesis, relativist effects arise due to the experiential.

[35]Note that in various embedded contexts, as in (i), the acquaintance inference is not present (it is "obviated", as described in Anand and Korotkova 2018).

(i) a. If the cake is tasty, I'll try some (I haven't yet).
b. The cake might be tasty (I still haven't tried it).

This pattern of obviation is parallel for sentences with predicates of personal taste and appearance predicates.

This possibility is significant for determining the scope of relativist effects in natural language. If it's right, theorists shouldn't jump from the recognition of relativist effects with predicates of personal taste to the view that all evaluative language must behave relativistically; nor need they worry, if they opt for a relativist analysis of experiential language, that they will need to abandon objectivism for weighty evaluative language, for instance about morality. Note that the hypothesis does nothing to rule out independently recognizing faultless disagreement about non-experiential evaluative matters (as I'll discuss more in Chapter 5). It simply carves up the space in a new way, one that doesn't bias us in towards assuming that puzzling behavior with taste predicates is due to their evaluative meaning.

On the flip side, however, looking at things in the way I've suggested also raises some new potential challenges for the relativist. Now, they have a whole new broader class of expressions — the experiential — for which they should be able to motivate the relativist approach. But if the comparisons I have drawn in §2.1 were convincing, this should not be an unwelcome challenge. Evidence overwhelmingly suggests that the same kind of relativist behavior exhibited by evaluative predicates of personal taste is also exhibited by experiential language more broadly.

2.4 Varieties of faultless disagreement

In this section, I will look more closely at a variety of cases of faultless disagreement with experiential predicates. It will emerge in §§2.4.1–2.4.2 that the subjective experience hypothesis is questionable, though still tenable, as a fully general claim about relativist effects in this domain. (I'll only use cases of faultless disagreement to illustrate this, though cases of retraction would do just as well. Indeed, for my purposes, faultless retraction might be thought of as a special case of faultless disagreement: namely faultless disagreement with one's former self.) However, the hypothesis is very plausible, I will argue in §2.4.3, for a restricted class of experiential predicates, which includes predicates of personal taste.

2.4.1 Epistemic cases

In a case like the dress dispute, it is quite plausible that the faultless disagreement is due to differing visual experiences of the two speakers. Indeed, I built this into the description of the case, repeated here, when I used it to motivate the existence of faultless disagreement about appearances.

(7) Alex and Briana are looking at the same dress, but have different experiences of its color.

a. **Alex:** That dress looks blue and black.
b. **Briana:** No, it looks white and gold!

But in the second case of faultless disagreement about appearances, repeated next, the same is not obviously the case.

(8) Alex and Briana both tasted the same cake. Alex rarely eats vegan food and really notices when baked goods lack ingredients like butter and eggs; Briana is more used to vegan food, so their lack doesn't strike her as much.

a. **Alex:** That cake tastes vegan.
b. **Briana:** No, it doesn't taste vegan!

One could say that in this sort of situation, Alex and Briana's gustatory experiences must differ. One might argue that if one of them is picking up on some flavor more than the other is, then there must be some difference in their subjective experiences. I don't want to rule this out. But I don't want to rely on it either. It is an issue that will presumably not be answered just by an examination of discourse about appearances. Just considering the dialogue, it seems to me an open possibility that as far as we can make sense of the qualitative identity of experiences, Alex and Briana's experiences might be the same. And yet, given their different past experiences and associations with the flavors, they notice different features of the cake's flavor, and so draw different conclusions about the likely properties of the cake.

An example from Doran 2015 makes an even stronger case against a difference in subjective experience being necessary for faultless disagreement about appearances.

(25) a. **Sam:** The man on that bench looks like he's just been dumped.
b. **Sue:** Nuh-uh, he looks like he's got bad stomach cramps.

In describing what might be going on this case, she writes:

> Suppose that the man on the bench is a total stranger, and neither Sam nor Sue will ever get to know what sort of day he was having. [...] Each speaker seems to be expressing her own impressions of the situation, much like two speakers expressing their

> own gustatory impressions of a particular batch of chili. [...] Sam's experiences with the world up until this point will have led her to form a series of beliefs and associative links pertaining to observable things in the world and their potential underlying causes. Perhaps in her experience, people who have recently endured heartbreak typically exhibit whatever facial expression the man on the bench is currently making. But Sue's experiences of the world may be different, and perhaps for her, the man's expression is characteristic of abdominal pain. (Doran, 2015, p. 22)

Here, the disagreement between Sam and Sue is explained in a way that doesn't seem to require them to have different visual experiences of the man on the bench. Instead, the two speakers' different past experiences and associations lead them to draw different conclusions based on their visual perception of the man. In this case, as well as in (8), the differences in perspective that give rise to the relativist effects don't seem like they must be differences in perceptual experience. Rather, the perspectives differ because the speakers' (possibly alike) experiences have different informational import as to the likely properties of things.

Some theorists, e.g. Macpherson (2012), have argued that background beliefs influence the quality of perceptual experience. More recently, however, evidence for such *cognitive penetration* of experience has been cast into doubt by, e.g. Firestone and Scholl (2016). It is thus probably safest to go forward under the assumption that, at least in cases like (25), the speakers' experiences may be qualitatively alike, despite other differences in their cognition. (Furthermore, as I'll return to below, my main points can be maintained, even if cognitive penetration takes place in all of these cases.)

Alternatively, it may be useful to distinguish narrower and broader senses of "experience." Experience in the narrow sense stops at what we might think of as the "immediate outputs of the perceptual module." This will include just qualitative features of experience, like color, shape, and certain kinds of smells and flavors and textures for the senses other than vision. Experience more broadly can be thought of as the information that the observer takes in through their perceptual apparatus, and this will often go much beyond the mere qualitative features.[36] I will not attempt to draw a sharp line between experience in these senses. But I believe it tracks a real and intuitive

[36]Thanks to Jennifer Matey for comments on this issue.

distinction, and once we recognize it, then we realize that it is only if we're thinking of experience narrowly-construed that it is implausible that there is an experiential difference in the cases of faultless disagreement in (8) and (25). If, instead, we think of experience more broadly, as all the deliverances of one's perception, then it does seem correct, as the subjective experience hypothesis states, that the speakers have different experiences in these cases. In the case of (8), the one has experiences suggesting that the cake is vegan, and the other does not.

The appearance reports in (7), (8) and (25) give rise to faultless disagreement when speakers experiences support different conclusions about what is the case. These appearance reports have features that philosophers of perception have previously associated with what they call *epistemic* uses of appearance language. Epistemic appearance predicates are used to convey what appearances suggest about the way things really are.Jackson (1977) writes that with these uses (of 'looks'), "I am expressing the fact that a certain body of *visually* acquired evidence [...] supports the proposition" (p. 30).[37] That appearance predicates of this sort should give rise to faultless disagreement is in fact expected, given the similarities between them and information-sensitive expressions, like epistemic modals and probability adverbs — which have widely been discussed as giving rise to relativist effects.[38] For example, consider the following case with 'probably',[39] and compare with the variant with 'looks' in (27), appropriate in just the same context.

(26) Fat Tony is a mobster who has planted evidence of his death at the docks. Andy and Beth observe the planted evidence. Andy has no idea that Fat Tony had a motive to fake his death and is convinced (though not completely certain) that he is dead. Beth, however, knows that he had such a motive and is suspicious (though doesn't rule out that the evidence is genuine).

[37] See also Chisholm 1957; Brogaard 2014, 2018.

[38] In the epistemic modal literature, there is debate about the merits of relativist and non-relativist approaches to dealing with this behavior, just as there is in the literature on predicates of personal taste. See, e.g., Stephenson 2007; MacFarlane 2011; Dowell 2011; Yalcin 2011; Egan 2007; Egan et al. 2005. Again, my point doesn't depend on any particular resolution of the debate. Rather, my concern is with what kind of difference in perspective gives rise to relativist effects; and in the case of epistemic vocabulary, it is differences in the information the speakers have.

[39] The case is adapted from Khoo 2015; Knobe and Yalcin 2014; I change the modal from 'might' to 'probably' to create a closer parallel with the appearance case.

a. **Andy:** Fat Tony is probably dead.
b. **Beth:** No, it's more likely that he faked his death.
[I.e. It isn't probable that he's dead.]

(27) Context as in (26).
a. **Andy:** It looks like Fat Tony is dead.
b. **Beth:** No, it doesn't.

Faultless disagreement arises over claims with 'might' or 'probably', when the speakers have different total bodies of evidence at their disposal. Similarly, faultless disagreement arises over epistemic appearance claims, when the speakers have different bodies of evidence, acquired through the relevant sense modality, at their disposal. In cases where all the relevant information seems to be that acquired through perception, as in the previous examples, dialogues of both kinds feel appropriate, and roughly equivalent. There is a difference, however, which I mention briefly in order to further clarify the comparison being proposed. Non-appearance informational expressions have been recognized to give rise to what Yalcin (2007) terms *epistemic contradictions*, as in (28-a) and (28-b). However, epistemic appearance claims, as in (28-c), give rise to no such contradictions.

(28) a. #Fat Tony might be dead, but he isn't.
b. #Fat Tony is probably dead, but he isn't.
c. It looks like Fat Tony is dead, but he isn't.

This contrast is expected, however, once we recognize that epistemic appearance claims are based on a restricted body of information — restricted to that acquired through the relevant sense modality. Traditional epistemic modals and probability adverbs, by contrast, are based on one's total body of information. It's not coherent to claim that all of one's information leaves something open, or makes it probable, while then going on to deny that it's the case. However, it can be perfectly coherent to claim that one's visually-acquired information makes something probable, while then denying that it's the case.

We have thus found one group of cases of faultless disagreement about appearances — faultless disagreement about epistemic appearances — where we shouldn't assume that what differs across the two perspectives is the narrow, qualitative experiences of the speakers. Instead, what differs seems to be the informational import of those experiences. Because of this sort

of case, and more to be discussed shortly, if we maintain the subjective experience hypothesis, it must be stated carefully, so as not to presume that the source of relativist effects with all experiential language is differences in experience in the narrow sense. However, as I'll argue in §2.4.3, variation in this narrow kind of subjective experience does remain a plausible source of relativist effects within a restricted class of experiential predicates.

2.4.2 Comparative cases

There is another type of case that casts doubt on a completely general subjective experience hypothesis, if restricted to narrow experience. Consider, for instance, the following disagreements about appearances:

(29) Max has put on very realistic face paint for Halloween, to make himself look like he has some kind of illness. Alicia and Bob both know it's just a costume.

a. **Alicia:** Max looks like he has chicken pox.
b. **Bob:** No, he looks like he has measles.

(30) Alicia and Bob smell a cheap, synthetically-scented perfume.

a. **Alicia:** The perfume smells like roses.
b. **Bob:** No, it smells like lavender.

In these cases, there is no question about the actual properties of things — it's uncontroversial that Max has neither the chicken pox nor the measles, and it's uncontroversial that no real flowers went into manufacturing the perfume. The question is rather what the appearances of things are more or less similar to. Appearance reports uses in this way have been called *comparative*. Jackson (1977), for instance, writes that in these cases, 'It looks like an F' seems to mean that it looks the ways Fs normally do (p. 31).[40] Two speakers can disagree over comparative judgments like these, without necessarily having different narrow perceptual experiences of the stimulus in

[40] See also Martin 2010 for a detailed account of comparative appearance reports. Note that "comparative" in this context refers to the idea that these claims involve judgments of similarity, requiring comparison between the subject and something else. These claims aren't comparative in the same was a a sentence like, say, "Mary is taller than John." There can, arguably, be comparative claims of this sort with appearance verbs, as in (i). These are beyond my scope for the moment.

(i) a. This cake tastes more vegan than that one.
b. John looks more angry than (he looks) sad.

question. They might be focusing on different aspects of the appearances, or they might differ in which aspects they think are most relevant. Again, though, this is a difference in experience, construed more broadly. Even if we see the same scene, if it strikes me as more similar to one thing, and you as more similar to something else, this is a difference in our experiences in a general sense.

Again, that faultless disagreement should arise in cases like these is unsurprising, even without differences in the narrow subjective experiences of the speakers. This is because comparative claims of many kinds, about things other than appearances, also give rise to faultless disagreement. Unlike the cases with information-sensitive expressions discussed above, cases with comparative constructions have not been prominently discussed in the literature on relativism. But they can clearly be found.

(31) Alvin and Brian observe Dev, whom they know to be an amateur swimmer, in a competition. Alvin is impressed by his technique, though Brian can't help focusing on his mediocre speed.

a. **Alvin:** Dev swims like a professional.
b. **Brian:** No, he doesn't!

Here, the two speakers can be assumed to have the same knowledge of what it takes to be a professional swimmer and in what ways Dev lives up to and falls short of this. However, they disagree about how all these factors should be combined and weighed into a judgment of whether he swims similarly enough to a professional for the comparative claim in (31-a) to be appropriate.[41]

In sum, there are cases of relativist effects with experiential language where the operative difference in perspective is something other than a difference in narrow subjective experience; so, the subjective experience hypothesis framed in §2.3 is only plausible as a fully general claim about relativist effects with experiential language if it is made more specific — to state that it can be differences in experiences broadly construed that are the source of the effects in question. In particular, in faultless disagreement involving both compar-

(i-a) is interesting, as it is clearly the appearance verb 'tastes' that makes the comparative acceptable (# 'This cake is more vegan than that one'). (i-b), however, may just be an instance of a metalinguistic comparative (see e.g. Embick 2007), given that it does not allow for the synthetic comparative form (# 'John looks angrier than sad').

[41] Faultless disagreement over comparative claims is plausibly a special case of faultless disagreement involving multidimensional gradable predicates. See e.g. Silk 2016; Kennedy 2013.

ative and epistemic appearance claims, it isn't necessary for the speakers to have different qualitative experiences (though, of course, they might sometimes). The differences in perspective can instead come down to other things, like differences in information, or differences in comparative judgments. Just as such differences can lead to relativist effects in non-experiential cases — with information-sensitive and comparative claims of other kinds — these kinds of differences can show up in experiential cases too. Sometimes, differences in information or comparisons lead to differences in experience, broadly construed. And in such cases, we get faultless disagreement over epistemic and comparative appearance claims.

Above, I mentioned the possibility of cognitive penetration of perceptual experience. If that does happen, then it may be that in all of the cases discussed in this section, the differences in information or comparative judgments result in differences, even in narrow perceptual experiences. Let me make two points about this possibility in connection to my aims here. First, it would do nothing to undermine the claim, which I will argue for in the next section, that relativist effects with predicates of personal taste come down to differences in such narrow subjective experience. Second, it would also leave intact the connection that I have drawn in this section, between certain uses of appearance predicates and information-sensitive and comparative expressions. Even if differences in information or comparisons can penetrate qualitative experience, to give rise to relativist effects that track narrow experiential differences, this would still in an important sense vindicate the claim that relativist effects with appearance language in these cases have the same source as relativist effects in non-appearance cases.

In probing the subjective experience hypothesis, we have thus found striking connections between appearance predicates and other kinds of, non-experiential, expressions. It makes a lot of sense that appearance claims should be able to behave similarly to claims involving these other expressions. Where epistemic modals allow us to make claims sensitive to our information, there are (epistemic) appearance predicates that allow us to make claims sensitive to our appearance-based information; where comparative constructions in general allow us to compare things, there are (comparative) appearance predicates that allow us to compare things with respect to their appearances in particular. Given that appearances are things we gain information from, and that we can compare, it makes sense that appearance predicates should have both of these uses.

2.4.3 Phenomenal and evaluative cases

Because of the cases discussed in the previous subsection, the subjective experience hypothesis is not plausible if couched in terms of narrow experience. Still, I would like now to defend such a narrow version as a claim about relativist effects within a restricted class of experiential predicates. That is, I will suggest that for some kinds of claims about appearances, faultless disagreement involving them does require a difference in the qualitative subjective experiences of the speakers.

A first case of this kind is the dress dispute already mentioned. There, if the two speakers are faultless in their claims — respectively that the dress looks blue and black, and that it looks white and gold — then it seems their visual experiences should differ qualitatively. It is, at the very least, much harder to point to what else is supposed to differ about their perspectives, to underlie the disagreement.

Philosophers in the perception literature have identified a third use of appearance claims, besides the epistemic and the comparative mentioned above: namely, a *phenomenal* use. In these cases, the appearance is qualified or described directly. It is controversial which appearance claims should be thought of as phenomenal.[42] I introduce the term simply in order to have a label for cases that are importantly different from those considered in the previous section — and in particular to be different in placing constraints on the phenomenology of the speakers, when they perceptually experience the stimulus that they're talking about. The claims in the dress case plausibly fit this description, but I will rely on less controversial examples. Consider the following, for instance:

(32) Ayse and Betty smell some cheese. Ayse finds it overpowering, while Betty doesn't.

a. **Ayse:** The cheese smells strong.
b. **Betty:** No, it doesn't.

(33) Alf and Bill taste the same wine. Alf finds it sweet, Bill doesn't.

a. **Alf:** The wine tastes sweet.
b. **Bill:** No, it doesn't.

[42] Jackson (1977) takes the main examples to be those ascribing color and shape appearances, while Martin (2010) believes that those are best thought of as comparative, while true phenomenal cases involve predicates that can apply primarily to appearances, such as 'sweet' or 'splendid', rather than those which primarily apply only to ordinary objects, such as color predicates.

What is the source of faultless disagreement about appearances in these cases? It is extremely natural to say that what differs across the speakers' perspectives here is how they subjectively experience the stimulus, olfactorily in (32), and gustatorily in (33). But, one might press: is this kind of difference really necessary? Above, I held that we shouldn't rule out that speakers disagreeing about epistemic or comparative appearances might nonetheless have qualitatively alike experiences. Could it not also be that the speakers in these two cases have qualitatively alike experiences, but differ in terms of whether they find that to be sweet or strong? This possibility is difficult to make sense of.[43] What is it for something to taste sweet to you (to make it such that a claim as in (33-a) could be faultless) other than for the gustatory experience to have a certain quality, which is lacking or less prominent in the experience of someone else (for whom the claim in (33-b) would be faultless)? And similarly for (32). In these cases, the judgments of the speakers have their source in the qualities of their perceptual experiences, in such a way that to faultlessly disagree, their experiences must differ.

This discussion now brings us to appearance predicates that are closest in meaning to predicates of personal taste — namely, those that are used to ascribe evaluative properties on the basis of appearances.

(34) Ann and Ben get a whiff of cigar smoke. Ann finds it unpleasant, while Ben likes it.

a. **Ann:** That smells gross.
b. **Ben:** No, it doesn't!

(35) Aline and Bob have both tried the same cake. Aline enjoyed it, but

[43] There is one kind of scenario where speakers might disagree as in (32) and (33) but without such experiential differences: namely, if they just differ on where they put the cutoff for counting as sweet or strong. In other words, Ayse and Betty might experience the odor of the cheese qualitatively identically but while Ayse thinks that smell meets the threshold for 'strong', Betty does not. I am interested in cases where the speakers differ on more than just this threshold judgment. We could control for this by switching to disagreement with comparative constructions, as in (i).

(i) a. **Ayse:** This cheese smells stronger than that one.
b. **Betty:** No, it doesn't.

In this sort of case, it is hard to make sense of the possibility that the speakers faultlessly disagree in virtue of anything other than qualitative differences in their experiences of the cheese.

Bob didn't.

a. **Aline:** This cake is tastes good.
b. **Bob:** No, it doesn't!

I avoided cases like these in arguing for the presence of relativist effects with appearance language, because in order to do that, it was necessary to factor out any contribution from evaluative language. Now, however, I turn to them as further examples of phenomenal appearance claims. To make the assertions in (34) and (35) faultlessly, the speakers must have experiences with a particular character, either pleasant or unpleasant. And it's hard to imagine these cases of faultless disagreement, without taking the speakers' experiences to differ in this way.[44] Again, though, one might press: couldn't the two speakers have qualitatively alike experiences, but differ in whether they find the smell gross, or the taste pleasant? But as with the non-evaluative phenomenal cases in (32) and (33) above, this possibility is challenging to make sense of. Rather, the positive or negative assessments in these sorts of cases seem to be expressing something about the quality of the experience itself. Whether or not it might be possible to make sense of the faultless dis-

[44]There are also superficially similar cases, to these as well as to (32) and (33), where the appearance claims would be epistemic or comparative; and in these cases the appearance claims do not feel equivalent to claims with predicates of personal taste. This would be the case, for instance, if the speakers were discussing whether some food has spoiled, and used 'tastes good' to mean not something about the pleasant quality of the flavor (as 'tasty' must be used!), but rather to mean that the flavor suggests that the food is still fresh.

There are further superficially similar cases where the appearance claims are phenomenal, but the disagreement is not based in differing qualities of the speakers' experiences. Two main alternatives are available. First, the disagreement may be due to differences in what each speaker takes to be the threshold for the application of the predicate — for instance, what is good-tasting enough to count as tasting good, or sweet enough to count as tasting sweet? (We could control for this by switching to disagreements over comparative claims, as noted in footnote 43.) Second, it may be due to differences in what each takes to be the relevant comparison class — for instance, Aline may judge that the cake tastes good because she's comparing it to supermarket-bought cakes, whereas Bob judges that it doesn't because he's comparing it to cakes he normally eats at nice parties. Both of these reasons for faultless disagreement are operative in cases involving gradable adjectives in general, not just experiential predicates (see Barker 2002, as well as references in footnote 41 above). But these do not exhaust the reasons for faultless disagreement with phenomenal appearance claims. My question here should be understood to be about the source of the disagreement in the remaining cases. Thanks to an anonymous reviewer for *Philosophical Studies* for helpful comments on this point.

agreements in (34) and (35) without such experiential differences, crucially, there is no pressure to appeal to such a possibility. For we already have a ready explanation of the presence of faultless disagreement in cases like these: namely, variation in subjective experience across perspectives. Cases of relativist effects with evaluative phenomenal appearance predicates lend no support to the view that relativist effects have their source in evaluation.

In just the same way, there is no reason to tie relativist effects to evaluation in cases involving traditional predicates of personal taste, such as the much-repeated (1) (equivalent to (35) above):

(1) Aline and Bob have both tried the same cake. Aline enjoyed it, but Bob didn't.

   a. **Aline:** This cake is tasty.
   b. **Bob:** No, it's not tasty!

I cannot definitively rule out that faultless disagreement about phenomenal appearances or matters of personal taste might be due to differences in perspective other than differences in the qualitative subjective experiences of the speakers. What I do hope to have motivated is that such differences in experience are an extremely intuitive way to explain why faultless disagreement arises in these cases — and to the point where it is hard to see how to make sense of the difference across speakers without appeal to this kind of experiential difference. To the extent that this is the case, it relieves us of any burden to explain relativist effects in these cases by appeal to the evaluative contents of the claims. Once we approach the language of personal taste via its similarity to the language of appearance, its relativist behavior no longer immediately raises any worry about relativism bleeding into the whole domain of the evaluative. Rather, relativist effects are naturally viewed as arising from the fact that these expressions are experiential.

2.5 Summary

Appearance language has received little attention in the semantic debates surrounding relative truth. I have shown, first, that relativist effects arise with appearance predicates, just as they do with predicates of personal taste. Thus, to the extent that relativism is motivated for the latter, it's equally motivated for the former. I've further shown how investigation of relativist effects with appearance language can lend insight into the source of relativist effects with predicates of personal taste. With those appearance predicates

that are closest in meaning to predicates of personal taste — phenomenal appearance predicates — the plausible source of relativist effects is variation in subjective experience across perspectives. I proposed that this role of experience is the source of relativist effects with predicates of personal taste too, so that there is no need to appeal to anything special about evaluative vocabulary to explain these effects.

Along the way, I also illustrated the variety of uses to which appearance language can be put. In addition to the phenomenal examples that are most relevant to the question about predicates of personal taste, there are also epistemic and comparative examples. In these cases, however, relativist effects may be due not only to narrow experiential differences, but also, respectively, to informational differences (on analogy with epistemic modals), and to differences in comparative judgments (on analogy with other comparative constructions) — things that give rise to differences in experience only if experience is thought of in a broader way. This variety in uses of appearance language is unsurprising, given the various ways in which we can be interested in appearances themselves: they are sources of information about the appearance-independent world, they can be the objects of comparisons, and they can also be bearers of evaluative qualities, as pleasant or unpleasant. So far, then, I hope not only to have provided a new perspective on discourse about matters of personal taste, by focusing on its experiential rather than evaluative side, but also to have brought out the interest in investigating the rich subject of discourse about appearances, which will occupy us more in the chapters to follow.

Chapter 3

Appearance reports and the acquaintance inference

3.1 Two types of acquaintance inference

Many assertions can be appropriately made on a variety of grounds. If I count the students in the introductory logic class and arrive at 110, I can appropriately assert, '110 students were in logic today'. I can also appropriately make that assertion if I was not in class, but you were and you counted and reported the result to me as 110.

The same can't clearly be said for assertions about aesthetic matters, or about matters of personal taste. If I observe the total solar eclipse, I can later appropriately assert, 'The eclipse was sublime'. It's less clear that I can do this having only heard your description of the eclipse. Similarly, if I try water-skiing and enjoy it, I can appropriate say, 'Water-skiing is fun'. But if I just hear from a friend that water-skiing is fun but haven't tried it myself, it would be odd for me to make that assertion.

These kinds of observations about the domains of aesthetics and matters of taste are old. They go back at least to Kant, who writes in the *Critique of Judgment*:[1]

> For even if someone lists all the ingredients of a dish, pointing out that I have always found each of them agreeable, and goes on to praise this food [...] I shall be deaf to all these reasons:

[1] See also Wollheim 1980; Mothersill 1984.

> I shall try the dish on *my* tongue and palate, and thereby [...] make my judgment. (Kant, 1790, §33)

More recently, the topic has been taken up by theorists in philosophy and linguistics interested in the semantics and pragmatics of the language of personal tastes (Stephenson, 2007; Pearson, 2013; Ninan, 2014). How, they ask, should our analysis of expressions such as 'fun' or 'tasty' account for the fact that simple assertions with them are inappropriate, unless the speaker has first-hand experience of the relevant subject matter? The target of explanation here is the *acquaintance inference*: the inference, as illustrated in (1), from simple assertions with the expressions of interest to the claim that the speaker has first-hand acquaintance with some relevant stimulus.

(1) **A:** Water-skiing is fun. $\rightsquigarrow$ A has tried water-skiing.

That such assertions give rise to the acquaintance inference can also be shown by the infelicity (denoted by '#'), in (2), of the claims when conjoined with the denial of the relevant kind of acquaintance.

(2) # Water-skiing is fun, but I haven't tried it.

Assertions about evaluative matters aren't the only ones to give rise to the acquaintance inference, however. Appearance reports do so as well, as illustrated in (3) and (4).

(3) **A:** Tom seems like he's cooking. $\rightsquigarrow$ A has seen Tom.

(4) # Tom seems like he's cooking, but I haven't seen him.

While the acquaintance inference with appearance reports has been acknowledged (Pearson, 2013; Ninan, 2014), it has not yet been adequately explored. The acquaintance inference with appearance reports deserves special investigation for at least two reasons. One reason, which will be my focus in Chapter 4, is that the parallel behavior across appearance and taste language calls out for a unified explanation. Another, which I take up here, is that appearance claims give rise to novel acquaintance behavior, with no clear analogue in the cases with predicates of personal taste, like (1).

To begin, note that appearance reports of different forms can give rise to importantly different acquaintance inferences, as illustrated in the "absent cook" case in (5). In this chapter, I'll be focusing on two forms of reports: *copy raising* (CR) reports, as in (5-b), which have a substantive DP matrix

subject, and an embedded 'like'-clause that contains a coreferring, or "copy" pronoun; and *expletive subject* (ES) reports, as in (5-a), with an expletive, or null, 'it' as matrix subject.

(5) Ann and Ben walk into Tom's kitchen. There's no sign of Tom, but there are various things bubbling away on the stove and ingredients on the counter, apparently waiting to be used.

a. **Ann:** It seems like Tom is cooking. (ES)
b. #**Ann:** Tom seems like he's cooking.' (CR)

By contrast, in a context in which Ann and Ben walk into Tom's kitchen and see him doing something at the stove, either form of report in (5) is appropriate (Asudeh and Toivonen, 2012; Rogers, 1972). The claim in (5-a) thus has a less restrictive acquaintance requirement, compared with (5-b). To describe this situation, let us define two types of acquaintance inference.

(6) **Specific acquaintance inference:** the inference that the speaker is acquainted with a specific individual, as specified in the sentence.
A: Tom seems like he's cooking. $\rightsquigarrow$ A has seen Tom.

(7) **General acquaintance inference:** the inference that the speaker is acquainted with something of relevance, left unspecified.
A: It seems like Tom is cooking. $\not\rightsquigarrow$ A has seen Tom
$\rightsquigarrow$ A has seen something relevant to whether Tom is cooking.

Based on just the previous examples, it is tempting to simply correlate type of acquaintance inference with surface form of the report — with copy raising reports giving rise to the specific acquaintance inference, as in (6), and expletive subject reports only giving rise to the general acquaintance inference, as in (7).[2] And indeed, some linguistic analyses in this domain have taken this empirical generalization for granted (Asudeh and Toivonen, 2012; Rett and Hyams, 2014). However, as I will illustrate in more detail below, this admittedly tempting generalization is incorrect. Consider, for instance, (8), which we might call the "absent experienced cook" variant on Asudeh and Toivonen (2012)'s original "absent cook" case from (5) above.

(8) Ann and Ben walk into Tom's kitchen. They don't see Tom, but there

[2]Under the plausible assumption that the individual the embedded claim is about is always relevant to the truth of that claim, the presence of the specific acquaintance inference entails the presence of the general one. The reverse, of course, is not the case.

are vegetables partially chopped on a cutting board, all perfectly even, and a roast cooling on the counter, delicately seasoned with fresh herbs.

a. **Ann:** It seems like Tom is an experienced cook. (ES)
b. **Ann:** Tom seems like he's an experienced cook. (CR)

In the scenario as described, both the expletive subject and copy raising reports are felicitous, even though the speaker, Ann, has not perceived the referent of the subject, Tom. This thus speaks against the tempting correlation between specific acquaintance inference and copy raising reports.

After reviewing some previous theoretical approaches to copy raising in §3.2, I turn in §3.3 to show, with the help of experimental work, how the acquaintance inference with copy raising reports is systematically sensitive to the previously-unrecognized factor of whether the embedded clause contains a *stage-level predicate* (roughly, a predicate denoting a transient property, like cooking) or an *individual-level predicate* (roughly, a predicate denoting a more standing property, like being an experienced cook). Moreover, this behavior makes sense, given the *evidential role* of appearance reports: their role of expressing our appearance-based evidence for some claim. The experimental work I present offers a more systematic overall empirical picture of the acquaintance inferences of appearance reports than has previously been on offer. In addition to showing the effects of the embedded clause on the acquaintance inferences of 'seem'-reports (as foreshadowed by the absent cook cases above), I also probe the effects of different appearance verbs, as well as different conversational contexts.

In §3.4, I consider the implications of the previous results for extant proposals about the semantics of appearance reports. More modestly, it fills a gap in previous theories by identifying which appearance reports get which of two possible interpretations; more radically, it suggests a shift in what type of explanation we should be giving for the acquaintance behavior in question. In §3.5, I consider the relationship between appearance reports in English and evidential constructions cross-linguistically, and in §3.6 I conclude this chapter by returning to the acquaintance inference with evaluative assertions about matters of personal taste, and considering how the conclusions we have reached about the acquaintance inference with appearance reports may contribute to our understanding of those earlier cases. I sketch three broad options: first, that the acquaintance inferences in both categories are to be explained independently; second, that evidentiality unifies them; and third,

that experientiality is the common source of the acquaintance inference in both of them. It is this final option that I favor, and that I will further develop in Chapter 4, as I believe that it is best able to account not only for the acquaintance inference, but also for the occurrence of faultless disagreement in the domains of interest.

3.2 Previous approaches to copy raising

Recent literature on the semantics of copy raising constructions addresses the question of whether they assign to the matrix subject the role of *perceptual source* (p-source), or "what is perceived in a perceptual event or state" (Asudeh and Toivonen, 2012, p. 322). Previous approaches fall into two broad camps: what I call *uniform perceptual source analyses*, which take all copy raising subjects to be p-sources, and *non-uniform perceptual source analyses*, which take only some copy raising subjects to be p-sources. I review these approaches in §§3.2.1–3.2.2, showing why neither is fully satisfactory.

3.2.1 Uniform perceptual source analyses

Uniform perceptual source analyses hold that all copy raising matrix subjects are interpreted as the perceptual source. This approach, in essence, works into the semantics of copy raising and expletive subject reports the contrast that we saw above in the absent cook scenario. In other words, copy raising reports are analyzed so as to predict that the referent of the matrix subject must be perceived, whereas expletive subject reports are analyzed so as not to predict that any particular individual must be perceived. This may be achieved, for example, with the following two semantic values for 'seem'.

(9) a. $[\![\text{seem}_{\text{ES}}]\!] = \lambda p.\exists x[\text{perception of } x \text{ gives evidence that } p]$
b. $[\![\text{seem}_{\text{CR}}]\!] = \lambda x.\lambda P.[\text{perception of } x \text{ gives evidence that } P(x)]$

Analogous clauses can be given for the specific sensory verbs. For instance, for 'smell', we would simply replace "perception" with "olfactory perception."

Asudeh and Toivonen (2012), as well as Rett and Hyams (2014) believe that all copy raising reports are unacceptable in contexts where the matrix subject is not perceived (that is, they all have the specific acquaintance inference), and hence offer a uniform p-source analysis, on which all copy raising reports assign the role of p-source to the matrix subject. That is,

they take all copy raising reports to have a meaning like that in (9-b).[3] This yields the right result in the absent cook case: given that Tom — the referent of the subject — is not perceived in that scenario, the CR report is false, and for that reason infelicitous. By contrast, the ES report, employing (9-a), is true, since there is something the perception of which gives evidence for the embedded claim, namely, the scene in the kitchen.

Some previous experimental work may seem to lend support to the uniform p-source analysis. Rett and Hyams (2014, §4.2) present results showing that, with the verbs 'seem', 'look', and 'sound', copy raising reports are highly unacceptable in "indirect contexts," or contexts in which the referent of the matrix subject isn't perceived. Chapman et al. (2015) also find that whether the speaker directly perceives the copy raising subject is highly correlated with the acceptability of the report, whereas the acceptability of expletive subject reports is not affected by perception. The findings in both studies, however, are a result of combining data from sentences with a variety of different embedded clauses. As we'll show in §3.3, this method can mask important differences in the perceptual requirements across different copy raising reports.

Asudeh and Toivonen (2017) develop the uniform p-source approach further, in response to some potential problem cases raised by Landau (2011); Heycock (1994).

(10) B has just described to A the bizarre noises that B's car has been making.
A: Your car sounds like it needs tuning very badly.
(Asudeh and Toivonen, 2017, p. 57)

[3] Asudeh and Toivonen (2012) treat copy raising reports with 'seem' differently from sentences with the specific sensory verbs. For our purposes, though, the essential feature of their view is that sentences with the relevant matrix verbs, substantive matrix subjects, and 'like'-clauses containing a pronoun that corefers with that subject, are such that the matrix subject is interpreted as the p-source. For evidence against a sharp distinction between 'seem' and the specific sensory verbs, see Landau (2011, p. 785) and Kim (2014, pp. 178–180). Asudeh and Toivonen (2012) also do not take the p-source to be a theta-role assigned to an argument of the verb, but instead to be a "semantic role," which enters differently into the analysis, but this will not be material to my discussion. Furthermore, I omit reference to an experiencer in the semantics, as it will not make a difference to my claims in this chapter. Rett and Hyams (2014, p. 178) also depart from Asudeh and Toivonen (2012) in taking the p-source to be part of the not-at-issue content instead of the asserted content, and in taking the expletive 'it' subject to be a pronoun that refers to an eventuality in a way determined by the context.

Acknowledging such cases, Asudeh and Toivonen note that the verb 'sound' allows for a "roundabout" interpretation, whereby the copy raising construction 'X sounds like...' is felicitous if the speaker has heard a *description* of X, even if they have not heard X itself. But, they hold, this does not mean that the subject is not a p-source. They write that "the sentence is acceptable because the speaker has received reported evidence about the engine of the car" (p. 57). They thus advocate a broadening of our understanding of the p-source, such that something can be the p-source (for a 'sound'-claim) either by being auditorally perceived, or by being the subject of an auditorally-received report. This, they hold, also explains the infelicity, in the context from (10), of the CR report in (11).

(11) #**A:** Your mechanic sounds like he needs to tune your car.

(11) is infelicitous because the mechanic is neither auditorally perceived nor the subject of a description that the speaker has heard. Thus, the mechanic cannot be the p-source, even on the broader understanding of that role.

Asudeh and Toivonen (2017) do not discuss potential counterexamples to the uniform p-source analysis with verbs other than 'sound'. We can, however, imagine them extending their solution to similar cases with 'look' and 'seem', as in (12) (modified from a case with 'sound' from Landau 2011).

(12) A looks at the posted sheet of exam results and sees Bob's name towards the bottom.

a. **A:** Bob seems like he's failed the exam.
b. **A:** Bob looks like he's failed the exam.

Here, as in (10), one could salvage the uniform p-source analysis by holding that Bob can be the p-source because a representation of him, on the result sheet, is the source of evidence for the embedded claim.

Asudeh and Toivonen (2017)'s discussion is in fact neutral between the view we have just sketched, and a rather different way of broadening the p-source. We have suggested, on their behalf, that an individual can be a p-source not only by being perceived itself, but also by being the subject of a perceived description or representation. But one could instead hold that, in the appropriate context, a sentence with 'Bob', say, as the subject, could assign the p-source role not to Bob himself, but rather to a representation of Bob. This might involve, for instance, taking 'Bob' to metonymically refer to his name on the exam sheet.

However, as we'll see below, there are other challenge cases for the uniform p-source approach. Not all are plausibly captured by broadening our understanding of the p-source, in either of the ways that might work for (10) and (12).

3.2.2 Non-uniform perceptual source analyses

The second broad approach to copy raising allows for variability in the interpretation of the matrix subject: sometimes (as in the absent cook case), it is a perceptual source; other times (as in the car repair case), it is not. Thus, not all CR reports employ the clause given above in (9-b), repeated here as (13-a). Some instead employ the clause in (13-b), which yields results equivalent to the ES version, though it is compositionally different.

(13) a. $[\![\text{seem}_{\text{CR}}]\!] = \lambda x.\lambda P.[\text{perception of } x \text{ gives evidence that } P(x)]$
b. $[\![\text{seem}_{\text{CR}'}]\!] = \lambda x.\lambda P.\exists y[\text{perception of } y \text{ gives evidence that } P(x)]$

This is the approach taken by Landau (2011) and Doran (2015).[4] Landau (2011) is motivated by cases like (10) and (12), which we discussed above, in which copy raising reports are based on descriptions or representations of the subject. Doran (2015), however, acknowledging that such cases might be handled by a uniform p-source analysis (e.g. through metonymy), puts forward an interestingly different counterexample:

(14) A is a skilled musician with a highly trained ear. Through the thin walls of her apartment, she can hear her neighbor playing the guitar. The chords sound slightly off, like the guitar is missing a particular string.
A: The B string sounds like it's missing. (Doran, 2015, p. 11)

Unlike the cases that Asudeh and Toivonen (2017) can account for by broadening the p-source, it is implausible, in (14), that a representation of the B string is heard, or that there is any kind of deferred or metonymic reference going on. It is thus hard to see how an advocate of the uniform p-source approach could insist that the B string is a p-source in this example. In §3.3 we will add yet more counterexamples to the uniform p-source approach.

Non-uniform p-source approaches are in a sense well-suited to account for the variable perceptual requirements of copy raising reports. However, they

[4] Potsdam and Runner (2001) hold a related view, though not couched in terms of the perceptual source.

are in an important sense incomplete, without any story about which reports come along with the p-source interpretation of the subject, and which do not. Without this, it remains mysterious why CR reports are ever infelicitous due to lack of perception of the referent of the subject. Why can we not, in a scenario in which the subject isn't perceived, just use the non-p-source interpretation? Such a repair, however, seems unavailable. This is precisely what made the absent cook case so compelling.

Landau (2011, p. 790) briefly discusses this worry, and suggests that the claim that the speaker has perceived the referent of the subject is in fact just a strong implicature. He writes that "usage of CR (and not the expletive variant) implicates that the matrix subject does participate in the perceptual event. But this implicature can be overridden." And he follows up with some naturally-occurring examples of apparently non-p-source 'look'-claims. This, however, does not adequately address the worry. There is no doubt that some CR 'look'-reports are felicitous without perception of the subject. But this doesn't mean that the inference that the subject is perceived is only ever an implicature. If it were, then we would expect it also to be cancelable in the absent cook case. But it seems evidently not to be. Recall that we introduced the perceptual requirements of CR claims in §3.1 by showing that it is infelicitous (in at least some cases) to conjoin the given claim with the denial that one has had the relevant perceptual contact:

(15) #Tom looks like he's cooking, but I haven't seen him.

If the p-source requirement is just an implicature, then it remains to be explained why this implicature so stubbornly resists cancellation in certain cases, but is easily overridden in others.

To summarize, uniform p-source analyses, which take all CR matrix subjects to be interpreted as p-sources, are simple and systematic. However, they face a number of troubling counterexamples. Non-uniform p-source analyses can easily allow for such cases. But for them, it remains to determine more systematically which CR reports have p-source subjects and which do not. I'll pick up with this task in §3.3, presenting experimental results testing the perceptual requirements of a wide range of CR reports. With that in hand, I'll return, in §3.4, to reassess the theoretical options.

Before moving on, though, a quick note about labels is in order. I have used the label "uniform p-source analysis" for analyses that take all copy raising matrix subjects to be p-sources; and "non-uniform p-source analysis"

for those that take some copy raising matrix subjects to be p-sources, and others not. So far, we have been understanding these views broadly, to apply to reports with all the verbs of interest: 'seem', 'look', 'sound', 'smell', 'taste', and 'feel'. However, at points it will also be useful to consider more restricted uniform and non-uniform p-source approaches, as applied to reports with only one verb. So, a uniform p-source analysis of 'smell'-reports would have it that all CR reports with 'smell' have p-source matrix subjects. And such a view is compatible with a non-uniform p-source analysis of 'seem'-reports. (Landau (2011), for instance, endorses both of these views.)

3.3 Experimental work

3.3.1 Overview of methods

I conducted a series of experiments testing the acceptability of copy raising reports in scenarios where the speaker did not perceive the matrix subject.[5] Each experiment has two conditions, a copy raising report and its expletive subject variant, both presented in the same scenario. Test subjects — self-reported native English speakers recruited through Amazon Mechanical Turk — were asked to rate the acceptability of the utterance in the given scenario, on a 7-point Likert scale. All experiments used a fully between-subjects design. Each experiment included a filler question, and two practice questions that also served as attention checks. A sample stimulus from an experiment with 'look' (used to confirm some data from Asudeh and Toivonen) is given in Fig. 3.1. The CR condition is shown. Other test subjects would see the same scenario, but with the ES variant ('It looks like Tom is cooking') instead.

[5]This chapter discuses results of 15 experiments, six conducted in January 2018, and nine conducted in August 2018. The earlier experiments, summarized below in §3.3.2, were originally presented in Rudolph 2019a. The later experiments, presented in §§3.3.4–3.3.6 were originally presented in Rudolph 2019b; preregistration information for these later experiments can be found at `https://aspredicted.org/kk45r.pdf` and `https://aspredicted.org/8r2du.pdf`.

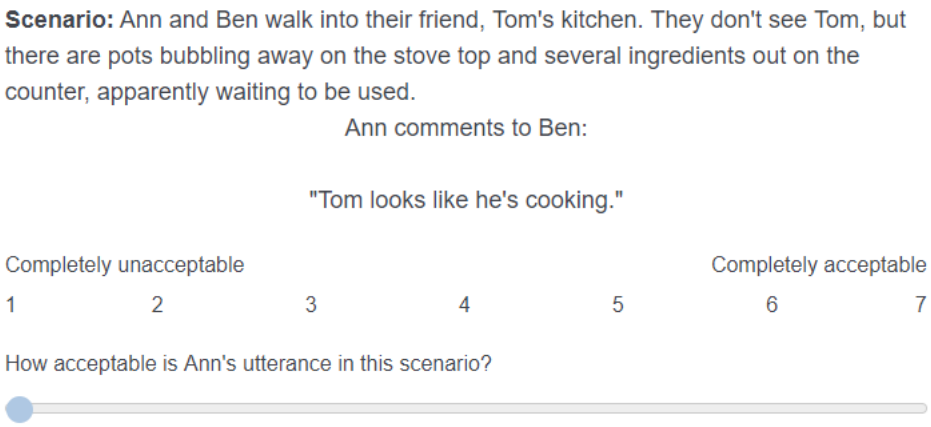


Figure 3.1: Sample experimental stimulus

If the expletive subject version was judged more acceptable than the copy raising one, to a statistically significant degree, then this is evidence that the CR report has the requirement that the subject be perceived. On the other hand, if the ES and CR reports were equally ranked, then that is evidence that the CR report does not have this requirement (as we assume that expletive subject reports certainly do not).

3.3.2 'Seem' and the specific with stage-level generalization

Appearance reports with 'seem' variably give rise to the specific acquaintance inference, or only to the general one — and in a way that cannot be explained just by appeal to the syntactic structures of the reports. To repeat the key motivating data points:

(16) **Absent cook:** Ann and Ben walk into Tom's kitchen. There's no sign of Tom, but there are various things bubbling away on the stove and ingredients on the counter, apparently waiting to be used.

a. **Ann:** It seems like Tom is cooking. (general)
b. #**Ann:** Tom seems like he's cooking. (specific)

(17) **Absent experienced cook:** Ann and Ben walk into Tom's kitchen. They don't see Tom, but there are vegetables partially chopped on a cutting board, all perfectly even, and a roast cooling on the counter, delicately seasoned with fresh herbs.

a. **Ann:** It seems like Tom is an experienced cook. (general)
b. **Ann:** Tom seems like he's an experienced cook. (general)

What accounts for the different acquaintance inferences across different copy raising 'seem'-reports, like (16-b) and (17-b)? I acknowledge there may be many factors that could potentially influence the acquaintance behavior of such claims. Here, I offer evidence for one novel generalization:

> **Specific with stage-level generalization:** Copy raising reports with embedded *stage-level predicates* (SLPs) give rise to the *specific* acquaintance inference; those with *individual-level predicates* (ILPs) give rise only to the *general* acquaintance inference.

SLPs are predicates that are presumed to hold only transiently of individuals (you can think of them as holding of "stages" of individuals — hence the label "stage-level" — but this is a substantive view of the distinction that I take no stand on here). Examples include 'cooking' and 'upset'. ILPs, by contrast, are predicates that are presumed to hold of individuals in a more standing way. Examples include 'an experienced cook' and 'well-organized'.[6] To give a clearer handle on the distinction (and to show its relevance across other linguistic constructions), I present two common diagnostics.

Bare plural diagnostic: Bare plural subjects of SLPs have existential interpretations, while bare plural subjects of ILPs have universal or generic interpretations.

(18) a. Students are cooking. ∃: SLP
b. Students are upset. ∃: SLP
c. Students are experienced cooks. ∀: ILP
d. Students are well-organized. ∀: ILP

Absolute construction diagnostic: Absolute constructions with SLPs in the antecedent are equivalent to conditionals with 'if…' or 'when…', while those with ILPs are equivalent to conditionals with 'since…' or 'given that…' (Stump, 1985).

(19) a. Cooking, Tom is happy. 'if…': SLP
b. Upset, Tom likes to be alone. 'if…': SLP
c. An experienced cook, Tom prefers to eat in. 'since…': ILP

[6] The distinction goes back to Carlson 1977.

d. Well-organized, Tom is good at his job. 'since...': ILP

So, to repeat, the Specific with Stage-Level Generalization states that copy raising 'seem'-reports with stage-level predicates (like 'cooking' in (16-b)) give rise to the specific acquaintance inference, that the speaker has seen the individual denoted by the subject, while copy raising 'seem'-reports with individual-level predicates (like 'an experienced cook' in (17-b)) only give rise to the general acquaintance inference, that the speaker has seen something relevant to the truth of the embedded claim.

The Specific with Stage-Level Generalization is supported by new experimental work comparing seven minimal null subject/copy raising pairs of sentences — three with embedded stage-level predicates ('cooking', 'upset', 'playing outside'), and four with embedded individual-level predicates ('an experienced cook', 'well-organized', 'enjoys arts and crafts', 'owns a cat'). The reports were tested in scenarios where the speaker did not have perceptual acquaintance with the individual denoted by the matrix copy raising subject. We tested the absent cook and absent experienced cook cases given above, as well as the further scenarios in (20)–(24). The Specific with Stage-Level Generalization then makes the following predictions: First, with the pairs with embedded SLPs, there would be a significant difference in acceptability between the two report types, with the null subject reports being rated higher than the copy raising reports. Second, with the pairs with embedded ILPs, there would be no such difference: both copy raising and null subject reports would be ranked equally, even though the matrix subject was not perceived.

(20) Sam and Sally glance into their co-worker Beth's office while she's out at a meeting. They see papers in a mess on her desk and crumpled on the floor. Sam knows that Beth usually keeps her office neat unless she's in an especially bad mood.

a. **Sam:** It seems like Beth is upset.
b. #**Sam:** Beth seems like she's upset.

(21) Allie is a five-year-old girl who is having trouble adjusting to kindergarten. Her teachers, Karen and Mitch, always encourage her to play outside during recess, but she usually stays inside crying to go home. One day during recess, Karen looks around the classroom and notices that Allie isn't there.

a. **Karen:** It seems like Allie is playing outside.
b. #**Karen:** Allie seems like she's playing outside.

(22) Sam and Sally glance into Beth's office while she's out at a meeting. They notice color-coded folders stacked neatly on the desk and a to-do list written on the whiteboard, with estimated completion times specified for each task.

a. **Sam:** It seems like Beth is well-organized.
b. **Sam:** Beth seems like she's well-organized.

(23) Karen and Mitch work together at a daycare center. Allie is a four-year-old who just started coming to the center. One day, Karen and Mitch are straightening up while the children eat their lunch in another room. Karen looks at the coloring project that Allie has been working on all morning, and notices all of the patterns neatly filled in with creative color combinations.

a. **Karen:** It seems like Allie enjoys arts and crafts.
b. **Karen:** Allie seems like she enjoys arts and crafts.

(24) Alice and Ed walk by their new neighbor, Claire's window one afternoon. They know Claire is out at work. Through the window, Alice sees a climbing tree and litter box. She also gets a clear whiff of cat smell through the open window.

a. **Alice:** It seems like Claire owns a cat.
b. **Alice:** Claire seems like she owns a cat.

The results were in line with the predictions of the Specific with Stage-Level Generalization. In the SLP cases (Fig. 3.2) there was a significant effect of report type on the ratings of utterance correctness;[7] in the ILP cases (Fig. 3.3), there was no such effect).[8]

[7]The results of one-way ANOVA tests are as follows. For the pair with 'cooking': $F(1, 111) = 14.81, p < .001$ (as homogeneity of variance could not be assumed, we also report the Welch statistic: $F(1, 72.4) = 12.89, p = .001$); 'upset': $F(1, 103.43) = 5.41, p = .02$ (Welch); 'playing outside': $F(1, 116) = 13.22, p < .001$. The smaller effect with 'upset' suggests that stative SLPs may tolerate a reading with only the general acquaintance inference more easily than eventive SLPs. Further tests will be needed to see if this generalization holds up.

[8]For the pair with 'an experienced cook': $F(1, 131) = .91, p = .34$; 'well-organized': $F(1, 124) = .46, p = .5$; 'enjoys arts and crafts': $F(1, 116) = .75, p = .39$; 'owns a cat': $F(1, 79.3) = 1.31, p = .26$; $N = 86$.

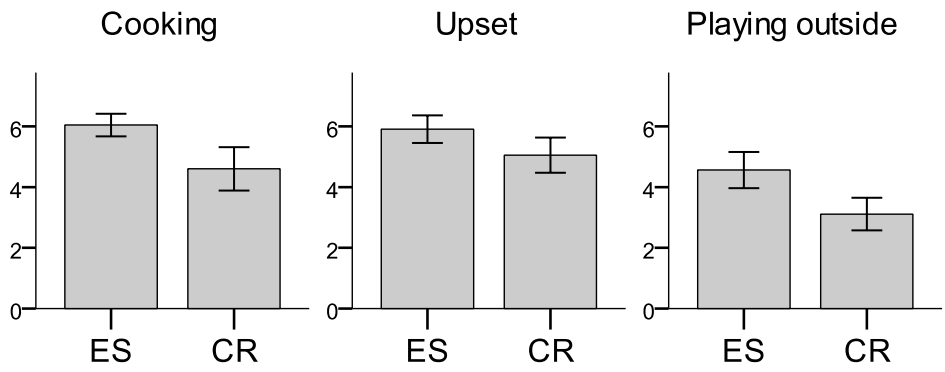


Figure 3.2: Mean ratings for 'seem'-reports: SLPs

3.3.3 Interlude: why the stage-/individual-level contrast?

We have seen evidence that copy raising 'seem'-reports that embed stage-level predicates, like 'cooking', give rise to the specific inference, that the speaker is acquainted with the referent of the subject, whereas copy raising 'seem'-reports embedding individual-level predicates, like 'an experienced cook', only give rise to the general inference, that the speaker is acquainted with something or other of relevance to the embedded claim. But why should these sorts of predicates behave differently in this way? I would like to suggest in this section that the Specific with Stage-Level Generalization supported above has a functional rationale. The rationale jumps off from the recognition that 'seem'-reports have an *evidential role*: they are used to express that one has perceptual evidence for some state of affairs, specified in the embedded clause.

Since stage-level predicates denote properties presumed to hold more transiently, perception of the individual the claim is about tends to be better, more direct evidence than perception of some scene not containing that individual. For example, perceptual evidence for someone cooking or being upset will generally be better if it is perception of that person; perception of some scene that may suggest that the relevant state of affairs holds, but doesn't include the individual, will tend to be worse. Thus, it makes sense for reports embedding SLPs to have a way to mark this distinction in evidential situation. Reserving copy raising reports for the special case of direct perception of the target individual would do this.

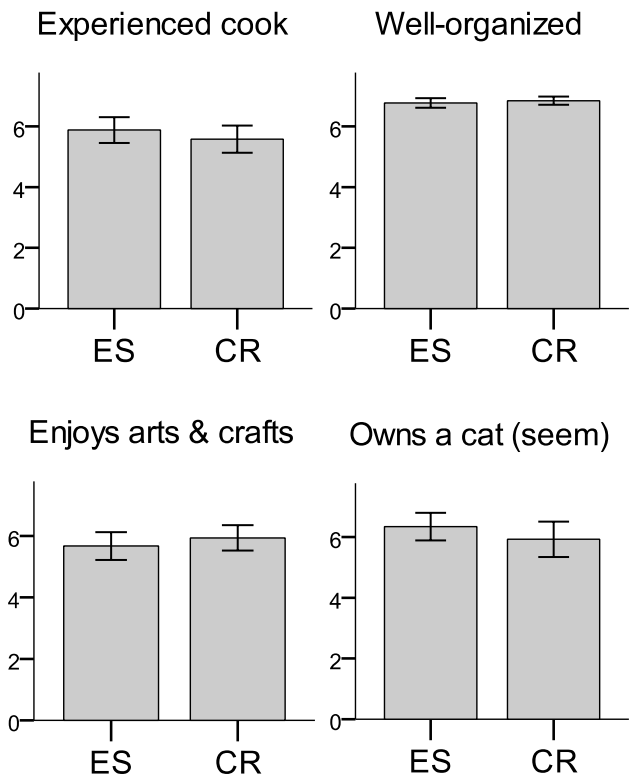


Figure 3.3: Mean ratings for 'seem'-reports: ILPs

Individual-level predicates, by contrast, denote properties that individuals have in a more standing way. Because of this, there is less of a contrast between the evidential power of perception of that individual, compared with perception of some other scene. For example, if the question is whether someone is an experienced cook, or well-organized, it matters less what they look like at the moment. Perception of some scene appropriately related to them can be just as good, or even better evidence that the embedded claim obtains. Thus, reports with embedded ILPs don't call for the same contrast between the two kinds of perceptual evidential situations the speaker may

be in, and so don't reserve copy raising reports for just one of them.[9,10]

This, then, is a sketch of a functional basis for the differing acquaintance behavior of 'seem'-reports embedding SLPs and ILPs. In the next section, I turn to a discussion of how this behavior might be captured within a semantic analysis of copy raising and null subject constructions.

3.3.4 Extending to 'look'?

A natural starting hypothesis is that 'look' displays essentially the same acquaintance behavior as 'seem' does, and that the Specific with Stage-Level Generalization applies to appearance reports with it as well. The only difference would be that 'look' tends to call for specifically visual acquaintance,

[9]My claim here about copy raising reports embedding SLPs is similar to what Rett and Hyams (2014) say about all copy raising reports: holding that they encode "direct evidentiality," while null subject reports do not — where the direct evidential component is that the speaker has perceived the referent of the matrix subject (see esp. pp. 176–179). I depart from them in holding that we must recognize variability across copy raising reports. This variability could be captured by denying that direct evidentiality is communicated by copy raising reports embedding ILPs. Alternatively, it could be captured by holding that there is variability in what counts as "direct evidence": that is, perhaps for claims with ILPs, direct evidence doesn't have to include the target individual. (These options correspond, respectively, to the "non-uniform" and "new uniform" approaches to copy raising that I discuss in the next section.)

We must also be careful about what is meant by "direct evidentiality" here, since 'seem'-reports are arguably only appropriate when the speaker has somewhat *indirect* evidence for the embedded claim. With rain falling around you, you don't say that it *seems* like it's raining, but that it *is*. The term "direct," as used by Rett and Hyams (2014) in this context, refers to the direct acquaintance with subject, which is the source of evidence, not to the directness of the evidence with respect to the embedded claim. See also Asudeh and Toivonen (2017, §3).

[10]This style of story makes immediately relevant two types of cases: first, SLPs that are such that evidence for their application doesn't seem especially tied to an individual's appearance; and second, ILPs that are such that evidence for their application *does* seem closely tied to an individual's appearance. Examples of the former may be stage-level predicates like 'missing' or 'absent' — and indeed, Doran (2015, p. 11) gives an example with 'missing' (with the appearance verb 'sound') to argue against a uniform analysis for all copy raising reports. Examples of the latter would be individual-level predicates like 'tall' or 'brunette'. More work is needed to determine to what extent the acquaintance behavior of copy raising reports tracks a predicate's status as SLP or ILP itself, as opposed to tracking something else that just tends to be correlated with these categories of predicates.

while 'seem' also allows for other kinds of perceptual acquaintance.[11] Consider, for instance, the case in (25), with the individual-level predicate 'well-organized'. Notice that the context is such that the speaker does not perceive the referent of the copy raising matrix subject.

(25) Sam and Sally glance into Beth's office while she's out at a meeting. They notice color-coded folders stacked neatly on the desk and a to-do list written on the whiteboard, with estimated completion times specified for each task.

a. **Sam:** Beth seems like she's well-organized.
b. **Sam:** Beth looks like she's well-organized.

We tested the copy raising 'look'-report in (25-b), as compared with its expletive subject variant, and indeed found no statistically significant effect of report type on the speaker's acceptability judgments (Fig. 3.4).[12]

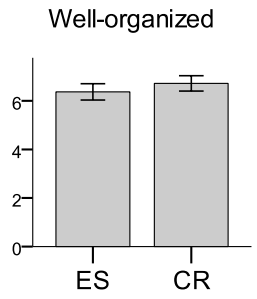


Figure 3.4: Mean rankings of utterance correctness: 'look'-reports

[11] Both 'seem' and 'look' do, however, allow for uses that arguably don't require perceptual acquaintance at all, as in, e.g. 'Plato's Theory of Forms looks/seems like it'll be difficult for the first-year students to understand.' Still, I think that some meaningful kind of "acquaintance" is still required; though it could be delicate how exactly to characterize it. I restrict myself here to appearance reports that clearly report on appearances of things that can perceived with the senses. That 'look' also has a broader use may be tied to the fact that in Indo-European languages like English, vision is the main source domain for vocabulary having to do with knowledge and understanding (e.g. 'I see what you mean'). Thanks to Line Mikkelson on this point.

[12] $F(1, 99.22) = 2.27, p = .14; N = 102.$

However, with other individual-level predicates, results with 'look' diverged from those with 'seem'. With the predicates 'experienced cook', in (26), and 'owns a cat', in (27), for instance, copy raising 'look'-reports were judged significantly less acceptable than their expletive subject variants (Fig. 3.5).[13]

(26) Scenario as in (17).

a. **Ann:** It looks like Tom is an experienced cook.
b. ?**Ann:** Tom looks like he's an experienced cook.

(27) Scenario as in (24).

a. **Alice:** It looks like Claire owns a cat.
b. ?**Alice:** Claire looks like she owns a cat.

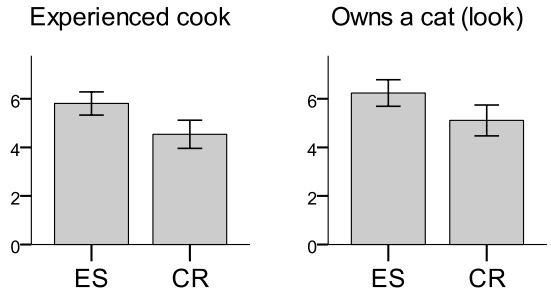


Figure 3.5: Mean rankings of utterance correctness: more cases with 'look'

We must thus acknowledge that the specific acquaintance inference is more persistent with copy raising reports with 'look' than with those with 'seem'. However, the clear case of 'well-organized', where the two report types were equally highly rated, suggests that CR 'look'-reports can be flexible in their perceptual requirements in a similar way to 'seem'-reports.

We also tested the 'look' variants with stage-level predicates: the original case with 'cooking' as well as the case with 'upset' in (28). In these SLP cases, the results with 'look' were as with 'seem', with ES reports rated

[13] 'Experienced cook' ($N = 128$): $F(1, 122.1) = 11.46, p = .001$; 'owns a cat' ($N = 87$): $F(1, 84.44) = 7.39, p = .008$.

significantly higher than CR ones (Fig. 3.6).[14]

(28) Scenario as in (20).

a. **Sam:** It looks like Beth is upset.

b. #**Sam:** Beth looks like she's upset.

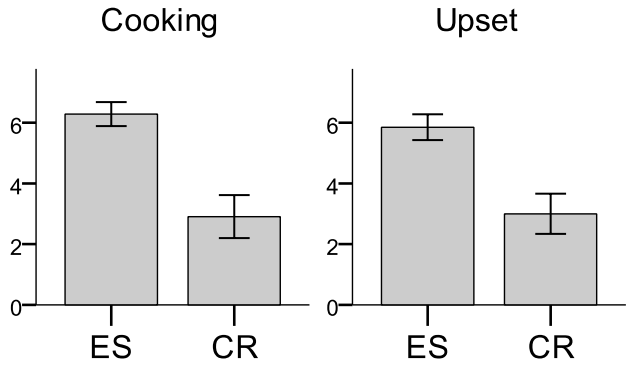


Figure 3.6: Mean ratings for 'look'-reports: SLPs

3.3.5 'Smell', 'taste', and 'feel'

Copy raising reports with 'smell', 'taste', and 'feel' invariably require perception of the referent of the matrix subject (Landau, 2011). This holds regardless of whether the embedded clause contains a stage-level predicate, as in (29), or an individual-level predicate, as in (30). We experimentally confirmed this with the ILP case (Fig. 3.7).[15]

(29) A and B snoop in their housemate C's room after she's left for work. They notice a strong scent of perfume, as though it was sprayed quite recently.

a. **A:** It smells like C is wearing perfume today.

b. #**A:** C smells like she's wearing perfume today.

[14] 'cooking' ($N = 92$): $F(1, 67.08) = 70.54, p < .001$; 'upset' ($N = 117$): $F(1, 85.66) = 52.79, p < .001$.

[15] $F(1, 87) = 81.8, p < .001$; $N = 89$.

(30) Alice and Ed walk by their new neighbor, Claire's window one afternoon. They know Claire is out at work. Through the crack in the window, Alice gets a clear whiff of cat smell.

a. **Alice:** It smells like Claire owns a cat.
b. #**Alice:** Claire smells like she owns a cat.

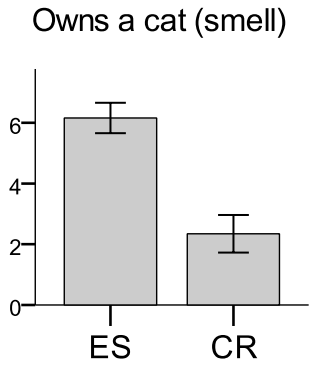


Figure 3.7: Mean rankings for 'smell'-reports

Native speaker intuition confirms that 'taste' and 'feel' pattern with 'smell' in this regard. The following cases embed ILPs, but there is no doubt that the CR reports are infelicitous in the contexts described, where the subject isn't perceived. By contrast, the ES reports are fine.

(31) Tom has invited A and B over for a home-cooked dinner. A takes a bite of mini-quiche appetizer and is impressed by the perfect consistency and delicate seasoning.

a. **A:** It tastes like Tom is an experienced cook.
b. #**A:** Tom tastes like he's an experienced cook.

(32) A and B visit their neighbor, Naomi. A runs her hand over the armrest on the couch and notices ridges like those that would be made by scratching claws.

a. **A:** It feels like Naomi has a cat.
b. #**A:** Naomi feels like she has a cat.

3.3.6 'Sound': perception and representation

As we saw in §3.2.2, many theorists have put forward cases with 'sound' to show that not all CR reports require perception of the matrix subject. Here, we present experimental confirmation that in a context in which a 'sound'-report is based on a description or representation, as in (34), the CR report does not require perception of the subject. However, in a context in which the report is based on auditory perception, as in (33), the CR report behaves just like those with 'smell', 'taste' and 'feel', being infelicitous without perception of the subject (Fig. 3.8). Both cases use the same embedded clause, with the ILP 'owns a cat'.[16]

(33) Alice and Ed walk by their new neighbor, Claire's window one afternoon. They know Claire is out at work. Alice hears what sounds like a faint meow coming from inside, followed by the sound of claws scratching against the floor.

a. **Alice:** It sounds like Claire owns a cat.
b. #**Alice:** Claire sounds like she owns a cat.

(34) Ed is telling Alice about his new neighbor, Claire. He mentions that he saw her carrying in a large climbing tower, as well as bags of kitty litter.

a. **Alice:** It sounds like Claire owns a cat.
b. **Alice:** Claire sounds like she owns a cat.

Note that the variability observed here with 'sound' is different from what we saw with 'seem' and 'look' above. There, we found CR reports with different embedded clauses having different perceptual requirements. Here, by contrast, we see the very same CR 'sound'-reports, sometimes requiring perception of the subject, and sometimes not, based on the nature of the context in which the report is used.

In fact, representation-based uses of CR 'sound'-reports seem to be acceptable, regardless of the embedded predicate, as is shown in (35), with the SLP 'dancing ballet'.

(35) B is looking through the window into a dance studio. Talking on the phone to A, he describes what he's observing.

[16] In the representational scenario: $F(1, 94) = .258, p = .613$; $N = 96$. In the perceptual scenario: $F(1, 53.1) = 44.44, p < .001$; $N = 74$.

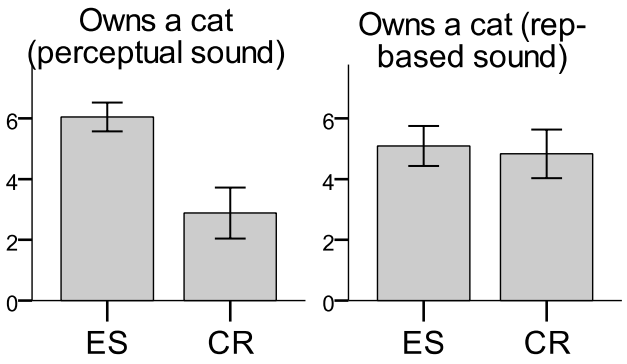


Figure 3.8: Mean rankings for 'sound'-reports

a. **A:** It sounds like they're dancing ballet.
b. **A:** They sound like they're dancing ballet.

Note that 'seem' could be substituted in for 'sound' in the previous example. Thus, we should also recognize representation-based uses of 'seem', on which even copy raising reports with embedded SLPs do not require of perception of the subject. Reports with 'look' are arguably the same, with the caveat that the representation should be visually received, as in (36).

(36) A reads the office hours on their professor, Hannah's web-page and notices that the present time is listed.
   a. **A:** It looks like Hannah is in the office now.
   b. **A:** Hannah looks like she's in the office now.

3.3.7 Summary of empirical landscape

We have found three different sources of variability in the perceptual requirements of copy raising reports. First, there is variability due to the matrix verb. Copy raising reports with 'smell', 'taste', and 'feel' invariably require perception of the subject, whereas CR reports with 'seem', 'look', and 'sound' do not. (Of course, there is also a difference in what type of perception these verbs require; but we have been leaving that implicit.) Second, with 'sound', 'seem', and 'look', there is variability due to whether the report is perception-based or representation-based. In representation-based contexts, there is no requirement that the subject be perceived; in perception-based

contexts there is always this requirement with 'sound', and sometimes with 'seem' and 'look'. Third, with 'seem' and (to a certain extent) 'look', there is variability due to the embedded clause. CR reports with embedded stage-level predicates tend to require perception of the matrix subject, whereas those with embedded individual-level predicates tend not to require this.[17]

While there are likely further empirical subtleties to the acquaintance inferences of appearance reports, I will work just with what has been laid out above. The landscape is summarized below in Table 3.1.

3.4 Back to theoretical approaches

As we saw in §3.2, previous approaches to copy raising divide into two broad camps: uniform perceptual source analyses, which take all CR matrix subjects to be interpreted as perceptual sources, and thus to be necessarily perceived, if the report is to be felicitous; and non-uniform perceptual source analyses, which take some CR matrix subjects to be p-sources, and others not, thus allowing for some CR reports that are felicitous even without perception of the matrix subject.

3.4.1 Revisiting uniform p-source analyses

Already in §3.2, we saw some troubling counterexamples to a uniform p-source analysis; and the 'seem' and 'look' CR reports embedding individual-

[17] Further complication to the picture comes from cases with embedded predicates denoting some kind of absence, like 'missing', in Doran (2015)'s B string case in (14). This seems to be a distinct source of variability due to the embedded clause, not only with 'sound'-reports, but also with 'seem'- and 'look'-reports:

(i) A glances around the classroom and doesn't see Jim anywhere.
   a. **A:** Jim seems like he's absent.
   b. **A:** Jim looks like he's absent.

Note that 'missing' and 'absent' are stage-level predicates; so this behavior is not captured by the observation that the perceptual requirement is lifted with embedded individual-level predicates.

The status of this kind of case with 'smell', 'taste', and 'feel' is somewhat unclear.

(ii) A tastes the soup and it's extremely bland, as though the cook forgot to include all the seasoning that the recipe called for.
   ?**A:** The salt tastes like it's missing.

The CR report in (ii) is not completely unacceptable, by contrast with the 'taste' example from (31-b). However, to the extent that it is acceptable, it might be heard as conveying that there is some salt that is tasted, but that is so faint it's barely detectable.

	ES	**CR**
seem	general	SLP: specific
		ILP: general
		rep-based (SLP/ILP): general
look	general	SLP: specific
		ILP: general(?)
smell, taste, feel	general	specific
sound	general	perc-based: specific
		rep-based: general

Table 3.1: Overview of acquaintance inference with appearance reports

level predicates from §§3.3.2, 3.3.4 only make this kind of approach more difficult to maintain. While Asudeh and Toivonen (2017) may broaden their understanding of the p-source to account for representation-based cases, as we saw in §3.2.1, this move does not plausibly extend to cases like the absent experienced cook, in (17). Perceiving the product of Tom's cooking is not to perceive a representation or description of Tom; and nor is it plausible that when we say, 'Tom seems like he's an experienced cook', we somehow use 'Tom' to refer in a deferred way to the food that he cooked. I thus conclude that a general uniform p-source analysis is empirically inadequate. However, restricted uniform p-source analyses are adequate for 'smell', 'taste', and 'feel'. And a restricted uniform p-source analysis for 'sound' may also be fine, provided we take on board some version of Asudeh and Toivonen (2017)'s suggestion for representational cases.

3.4.2 Revisiting non-uniform p-source analyses

Non-uniform p-source analyses are empirically adequate, given our results. More specifically, our data support adopting non-uniform analyses at least for 'seem' and 'look'. Moreover, we have results in hand that allow us to be more systematic than previous non-uniform p-source theorists about which reports employ which versions of these verbs. We would hold that the non-p-source versions of these verbs are more often employed in CR reports, when these reports embed individual-level predicates.

However, this is not an extremely theoretically satisfying place to land. We would, in effect, be saying that the two sentences in (37) have different

semantic structures: the first with a p-source subject, employing clause (38-a) (repeated from (13-a)), and the second without, employing clause (38-b) (repeated from (13-b)).

(37) a. Tom seems like he's cooking.
b. Tom seems like he's an experienced cook.

(38) a. $[\![\text{seem}_{\text{CR}}]\!] = \lambda x.\lambda P.$perception of x gives evidence that $P(x)$
b. $[\![\text{seem}_{\text{CR}'}]\!] = \lambda x.\lambda P.\exists y[$perception of y gives evidence that $P(x)]$

Somewhat ironically, it is much more plausible that there are different semantic structures across perceptual and representational cases with 'seem' (or 'sound' or 'look'), like those we saw in §3.3.6. And yet the differences between those might be accommodated within a uniform p-source analysis. But the contrasts observed between SLP and ILP cases with 'seem' and 'look' do not seem to cry out for such an explanation — both kinds of CR reports are equally based on perception, and whatever difference there is between them seems not to come down to something about 'seem', but rather to something about the embedded clause. Put another way, the clearest problem for the uniform p-source approach, and so the clearest motivation for a non-uniform approach — assuming, as we will question in a moment, that it's the only alternative — comes from the ILP-embedding examples with 'seem' and 'look', like (37-b). However, of all the potential problem cases for the uniform approach, these are the least plausibly encompassed by a non-uniform p-source view.

3.4.3 A new uniform analysis

A non-uniform perceptual source analysis is not the only alternative to an analysis that takes all CR reports to have p-source subjects. Another alternative is that *no* CR reports have p-source subjects. This amounts, in effect, to giving up an assumption implicitly endorsed by all of the theorists I have been citing in this debate: namely, that the acquaintance behavior of the reports in question should be encoded in the semantics.

> **Acquaintance/p-source link:** The matrix subject of a copy raising 'seem'-report is interpreted as the perceptual source if and only if the report gives rise to the specific acquaintance inference.

Assuming this link, the Specific with Stage-Level Generalization lends support to a non-uniform analysis of copy raising reports with 'seem' and 'look'.

This is because the generalization holds that some copy raising reports give rise to the specific acquaintance inference while others don't, and hence, given the Acquaintance/P-Source Link, that some copy raising subjects are interpreted as p-source while others aren't. But more significantly, the generalization offers a *systematic* answer to the question of which copy raising reports get interpreted which way — something missing in previous discussion of non-uniform analyses. The p-source interpretation is present, on the current proposal, when its presence allows us to mark a distinction in perceptual evidential situation, and this is the case with 'seem'-reports embedding SLPs, but not those embedding ILPs. This is the more modest theoretical upshot of the Specific with Stage-Level Generalization. It serves to systematize variable acquaintance behavior across copy raising reports, and thus to underwrite a non-uniform analysis, on which some of these reports specify a p-source, while other don't.

But, here, we are imagining a more radical reaction: rejecting the Acquaintance/P-Source Link altogether, and accounting for the variable acquaintance behavior in a different way. Rejecting the Acquaintance/P-Source Link opens up space for a new uniform analysis, on which all copy raising reports have the same underlying semantic structure, while still not making incorrect predictions about the acquaintance inferences associated with the reports. The idea is that 'seem' and 'look' uniformly assign some role to their subjects, but it's not a role that builds in a perceptual requirement. Instead it's a more minimal role, which just requires that the subject individual be related in an appropriate way to the embedded claim. Call this role the *evidential source* (e-source): the source of perceptual evidence. On such a view, all CR 'seem'-reports would employ the clause given in (39) (while CR 'look'-reports would employ an analogous one, restricted to visual perception).[18]

(39) $[\![\text{seem}_{\text{CR}*}]\!] = \lambda x.\lambda P.x$ is the source of perceptual evidence that $P(x)$

The e-source is the source of appearance-based evidence. Crucially, what

[18] I have previously thought of this role as a kind of *topic*. Topics figure in linguistic explanations in other cases, appealing to the requirement that the topic of a sentence be characterized by the rest of the sentence. Consider, for example, the contrast between the two sentences in (i).

(i) a. People's Park is dangerous to meet friends in.
b. #Friends are dangerous to meet in People's Park.

it takes to be an e-source may vary depending on the claim that the evidence is supposed to be evidence for. Trivially, Tom can be an evidential source for the claim that he's cooking, without being an evidential source one way or the other for the claim that he's an experienced cook — say if what he's doing is too basic to show the difference. To capture the results of the Specific with Stage-Level Generalization, however, the important possibility is that what it takes for Tom to be an e-source for a stage-level claim about him may be more restricted than what it takes for Tom to be an e-source for an individual-level claim about him. He can be an e-source for the claim that he's cooking only by appearing some way himself; but he can be an e-source for the claim that he's an experienced cook also by being appropriately connected with the scene in the kitchen that suggests as much. More generally, the claim would be that an individual can only be an e-source for its possession of stage-level properties by appearing some way itself; whereas it can be an e-source for its possession of individual-level properties not only by appearing some way itself, but also by being appropriately connected with some other scene that appears some way.

Note that on this approach, there are two very different ways for a 'seem'-report to lack the specific acquaintance inference. Expletive subject reports lack this inference, because nothing in particular is singled out as the e-source. Copy raising reports with embedded ILPs lack this inference too, but not because no e-source is specified. Rather, they lack the inference, because something can be an e-source without being perceived.

The new uniform e-source approach thus captures the variable acquain-

(i-a) is fine, since the topic subject, 'People's Park', is characterized by the rest of the sentence in a reasonable way. By contrast, (i-b) is odd, since the rest of the sentence doesn't give a reasonable characterization of 'friends'. The thought is that copy raising reports also require a kind of characterization of the matrix subject (and this may be understood flexibly enough that it doesn't always require the subject to be perceived). Kim (2014) thinks of the matrix copy raising subject as a topic, leading to the pragmatic "perceptual characterization condition" on CR reports that "the matrix subject of the CR construction, serving as the topic, is 'perceptually characterized' by the rest of the utterance" (p. 183). The new uniform approach I'm suggesting is partly inspired by his work; but it differs in at least two ways. First, I take the interpretation of the matrix subject as evidential source or appearance topic to replace its interpretation as the perceptual source; it's not clear if Kim would endorse this, given that he talks as if the characterization condition comes along with the p-source interpretation of the matrix subject (see p. 184). Second, I employ the minimal nature of the e-source role to explain why some copy raising reports *don't* give rise to the specific acquaintance inference, while Kim uses his topic approach primarily to explain cases where the specific inference is present.

tance behavior of copy raising 'seem'-reports, without positing different semantic structures for surface-alike sentences. The explanation rests on independent facts about stage- and individual-level properties, and what it takes to be sources of evidence for their presence. While this is an important advantage, the approach also faces some open questions. I will briefly discuss three.

First, the e-source approach owes more of an explanation for the different evidential behavior of SLPs and ILPs. The claim is that Tom himself can't be the e-source for the claim that he's cooking, in the absent cook case. Still, in that scenario, something — say, the scene in the kitchen — must be an e-source. This is what allows the expletive subject report to be appropriate. So far, so good. But the e-source approach must say something very different about the individual-level example (the absent experienced cook case). In that case, Tom — Tom himself, and not just the scene in the kitchen! — can be the e-source for the claim that he's an experienced cook, even if he isn't present. This is what is supposed to explain why the CR report embedding 'an experienced cook' doesn't give rise to the specific acquaintance inference. But why would this be? We would like to have something more to say here.

Second, the e-source approach faces a challenge from 'seem'-reports without embedded pronouns that co-refer with the subject.

(40) Pavi seems like the baby didn't sleep last night.

There has been some controversy over the acceptability of such *copy free* (CF) reports.[19] I hold, following Landau (2011) and Kim (2014), that they can be acceptable, given the right context. CF reports all give rise to the specific acquaintance inference. For (40) to be appropriate, the speaker must have perceived Pavi, perhaps having walked in looking sleep-deprived, or otherwise showing signs of having been kept up by a baby. Reports like these pose a challenge for the e-source analysis because there are minimal pairs of CR and CF reports, with equivalent embedded clauses, but which differ in their acquaintance requirements.

(41) **Context** A and B walk by their neighbor, Charlie's house. A notices that a ground-floor window has been smashed. The address of the house is 12 Front Street.

a. **A:** Charlie seems like he's been burgled.

[19] See, e.g., Asudeh and Toivonen 2012, p. 330

b. #**A:** Charlie seems like 12 Front Street has been burgled.

The CF report in (41-b) is clearly unacceptable in the context described, where Charlie himself is not perceived by the speaker. (The report could be acceptable in a context where Charlie comes in looking distraught, and the speaker knows that Charlie has two houses, but cares much more about the house at 12 Front Street.) This is unexpected on the e-source approach. To the extent that the CR report in (41-a) is acceptable, the e-source analysis holds that this is because Charlie can be an evidential source for the claim that he's been burgled, even if he's not present. But if he's the e-source for that claim, surely he can equally be the e-source for the (known-to-be) extensionally equivalent claim that 12 Front Street has been burgled. The e-source analysis seems to be at a loss to explain why CR and CF reports should have such different acquaintance requirements.[20] There is the option of holding that while CR 'seem'-reports have e-source matrix subjects, CF reports have proper p-source subjects. Without more explanation, though, this would be a somewhat *ad hoc* move.

Third, an open question for the e-source analysis for 'seem' and 'look' together is how it accounts for differences between these two verbs. As we saw in §3.3.4, some ILP-embedding 'look'-reports retain the requirement of perceiving the subject much more strongly than 'seem'-reports with the same embedded predicates. The e-source analysis can explain some differences between these verbs, as it requires that the subject in a 'look'-report be the source of *visual* perceptual evidence, whereas the subject in a 'seem'-report must just be the source of (general) perceptual evidence. However, this difference does not readily explain the observed contrasts, given that in all of the scenarios considered, there was visual evidence for the embedded claim. Perhaps, then, with 'look', we should return to a less radical approach, and adopt a non-uniform analysis, on which some copy raising subjects are interpreted as the perceptual source and others are not. The data found here would go some way towards systematizing the interpretations. With

[20]Malte Willer (p.c.) notes that (i) is about as awkward as (41-b) in the context described.

(i) Charlie's house seems like 12 Front Street has been burgled.

This is unexpected given what I've said, and suggests more complications with copy free cases. It also shows that mere coreference between the matrix subject and embedded DP isn't enough to give rise to CR-like behavior.

embedded stage-level predicates, 'look' would always have a p-source subject. However, with embedded ILPs, some variability would have to be recognized. The hope would then be that further investigation would help us better understand what affects the way the acquaintance inference goes in any given case.

Turn now to 'smell', 'taste', 'feel' and perception-based 'sound'. Copy raising reports in all of these cases invariably give rise to the specific acquaintance inference, and are thus infelicitous in contexts where the speaker is not acquainted with the referent of the matrix subject. If we wanted to extend the e-source approach to these verbs, we would have to hold that it is impossible for some individual to be an olfactory, gustatory, etc. source of evidence for some claim about it, without it appearing some way itself. This would have the result that the e-source analysis predicts just what a uniform p-source analysis does, about these cases. The question then is just why olfactory, gustatory, etc. evidence should work this way, while general perceptual and visual evidence does not.

If that question cannot be satisfactorily answered, then we should return to a p-source approach to 'smell', 'taste', etc. — while, however, retaining for 'seem' and 'look' whatever account best fit the variability displayed by them. This would reintroduce some non-uniformity into the picture. But it is a less troubling kind of non-uniformity than that endorsed by Landau (2011) and Doran (2015), as it cuts across reports with different verbs. As 'smell', 'taste', etc. do display very different acquaintance behavior from 'seem' and 'look', it is not theoretically troubling to posit importantly different meanings for the first class of verb compared with the second. By contrast, it is theoretically rather troubling to posit different meanings for 'seem' to account for the different acquaintance inferences across copy raising cases, all with that same verb (like in the "absent cook" vs "absent experienced cook" cases discussed earlier). Moreover, that appearance verbs in these two groups should have slightly different meanings in this way is not surprising, given the prominence in human cognition of visual perception for gathering evidence — a fact that is very plausibly reflected in language, given that, as Aikhenvald (2004, Chapter 2) discusses, many languages have designated evidential markers for claims based on vision, while none have designated evidential markers for claims based specifically on taste, smell, or touch (though many have a general marker for non-visual perceptual source of evidence, and some have

designated auditory markers).[21]

Finally, we should consider representation-based reports with 'sound' (and 'seem'). Within a broader e-source approach, representation-based uses of these reports may admit of a fairly straightforward explanation. We said that an e-source is the source of appearance-based evidence for the embedded claim. Well, it would be somewhat natural to allow an individual to be an e-source not only by appearing some way itself, but also by being *represented* in a way that is perceptually-received. In other words an individual can be an e-source either directly, or indirectly, via a representation of it. Then we just have to ensure that we don't predict the same flexibility with 'taste', 'smell' and 'feel'. This would be done most straightforwardly just by holding onto the p-source analysis for those, fully perceptual verbs — an option noted in the previous paragraph.

Alternatively, we might posit an ambiguity in 'sound' (and perhaps in 'seem' as well). Copy raising 'sound' would sometimes have a perceptual source subject, and sometimes just be interpreted equivalently with its null subject counterpart. Again, this would reintroduce some non-uniformity into the picture. Moreover, it would be non-uniformity across reports with the same appearance verb (and same surface syntax). This is the most potentially troubling kind of non-uniformity. However, I believe that if it will be justified anywhere, it will be here: to capture the difference between perceptual and representational uses of 'sound' (and 'seem'). This is because the contrast observed, in cases (33) and (34) above, with the predicate 'owns a cat', is so stark as to be safely called categorical. In this respect, it is unlike the contrast between SLP- and ILP-embedding 'seem'-reports, which is fuzzier, and hence calls for a more pragmatically-based explanation, like the uniform e-source analysis, that can allow for degrees of acceptability.

We can see that there are many theoretical choice points, once we expand our view to cover appearance reports with the specific sensory verbs, in addition to 'seem'. Our ultimate story should be a result of weighing empirical

[21] Brugman and Macaulay (2015, pp. 227–228) discuss a case that they take to suggest that a language (Karuk) has a designated auditory evidential but no designated visual one, which would go against the hierarchy suggested by Aikhenvald 2004; Willett 1988 and others. For my purposes, the interesting cross-linguistic fact is that vision is very often distinct from the other specific senses, and that no languages have interesting variation across 'smell', 'taste', and 'feel'. Distinctive behavior of auditory evidentials may show parallels with English 'sound', which is also interestingly different from the other sensory verbs, as I'll return to below.

adequacy and more theoretical considerations, like systematicity. So far, I believe that the most promising option is as follows:

- **'seem', 'look':** Uniform e-source analysis for all copy raising reports
- **'smell', 'taste', 'feel':** Uniform p-source analysis for all copy raising reports
- **'sound':** Non-uniform analysis for copy raising reports, with one p-source version, and another either e-source, or equivalent with null subject

This may seem more complex than the phenomenon justifies. Let me make two points to mitigate that worry. First, the data really are quite puzzling in this domain. We not only see variability in what kind of acquaintance copy raising reports of various forms require of the speaker, but we also see differences in how categorical the requirements are. I believe that this empirical situation naturally calls for different forms of explanation for different cases.

Second, viewing appearance reports in English as accomplishing something similar to evidential constructions in other languages, can help us see more order in the picture we've arrived at. Evidentials are markers of source of information (as opposed to strength of conviction, as epistemic modals indicate). Thus many languages have evidential markers for things like inference, perception, hearsay, and so on. Appearance reports indeed serve to communicate this kind of evidential meaning in English. Most appearance reports serve to mark a *perceptual* basis for one's claim. And as noted above, many languages have designated evidential markers for general perception, or visual perception, while none have special distinctions for the other four sensory modalities. The pattern we've found in English is consistent with this, where we see special behavior for the more general perceptual 'seem' and the visual 'look', as compared with the other specific sensory verbs.

But we've also seen some appearance reports marking a kind of *representational* basis for one's claim. This was clearest in uses of 'sound' based on a heard description. Here, the function of the 'sound' report seems to map onto something more like a hearsay-based evidential. And indeed, this is another category that many languages specifically mark out. It thus may be that 'sound' in English serves two importantly different evidential functions, which should be unified with different cross-linguistically-recognized categories, the first being perceptual, and the second testimonial.

3.4.4 Summary of theoretical options

The empirical landscape we've mapped out is consistent with adopting only (restricted) uniform analyses for copy raising reports. However, we must adopt different kinds of uniform analyses for the different matrix verbs: uniform p-source analyses for 'smell', 'taste', 'feel', and 'sound'; and uniform e-source analyses for 'seem' and 'look'.[22]

Moreover, we might hold on to some of these theoretical choices, while questioning others. Let's consider two possible departures from the suggestions just given.

First, we might adopt a uniform e-source analysis for all appearance verbs. In this case, we would owe an explanation for why CR reports with 'smell', 'taste', and 'feel' always require perception of the matrix subject, whereas CR reports with 'look' and 'seem' do not. Within the e-source approach, the answer would have to appeal to a difference between, on the one hand, what it takes to be a source of olfactory, gustatory, or tactile evidence, and, on the other, what it takes to be a source of visual or general perceptual evidence. The availability of such an explanation is doubtful, however, given that a contrast persists between CR reports with 'seem' and 'smell', even in a scenario when the evidence is olfactory, as illustrated in (42) (and note that the ES 'smell'-report is fine).

(42) A walks into Tom's kitchen. Tom isn't there, but A can smell the soup he's been cooking and the balance of aromas suggests that it is expertly-made.

a. **A:** Tom seems like he's an experienced cook.
b. #**A:** Tom smells like he's an experienced cook.
c. **A:** It smells like Tom is an experienced cook.

Second, if we doubt that representation-based CR reports with 'sound' can be adequately captured within a uniform p-source analysis, then we might opt for a non-uniform p-source analysis for 'sound'-reports. This would in fact interact with the other choices we've made. For if we adopt a non-uniform analysis for 'sound', then there might be some pressure to also adopt

[22] A remaining question is how this accounts for cases like that of the missing guitar string, from Doran (2015). How much of a problem these cases are for a uniform p-source analysis seems to depend on whether the phenomenon is the same with 'taste' (say) as with 'look' or 'sound'. As mentioned in footnote 17, we remain somewhat unclear on this data.

one for 'seem' and 'look', given that they too allow for representation-based uses. In that case, 'sound' would have both a p-source version (analogous to (38-a)), and a version assigning no role to the subject (analogous to (38-b)); and 'seem' and 'look' would have both e-source versions (like (39)), and a version assigning no role to the subject (again, like (38-b)). The latter, ES-equivalent, versions would be specifically for claims made on the basis of descriptions or representations. This idea carries some plausibility, given connections between appearance language in English and evidential vocabulary cross-linguistically — a topic I turn to in the next section.

3.5 Appearance reports and evidentiality

Many theorists have observed that appearance vocabulary in English conveys evidential information (Rett and Hyams, 2014; Chapman et al., 2015; Asudeh and Toivonen, 2017). Here I distinguish four facets of this connection to evidentiality.

First, as I have discussed at length in this chapter, at least some copy raising appearance reports convey that the speaker's evidence is from direct perception of the referent of the matrix subject.

Second, and independently, all of the appearance claims we've been discussing — of both copy raising and expletive subject forms — convey that the speaker has perceptual evidence (through the relevant sensory modality, if specified) for the embedded claim. I will discuss this feature of appearance claims at greater length in Chapter 4, but at this point, let me just note that this evidential information shares three key features that have been associated with evidentiality in the literature (see e.g. Korotkova 2016b and references therein). First, as is often taken to be at least partly definitional of evidentials, they impose restrictions on the *type of evidence* the speaker must have (visual with 'look', olfactory with 'smell', an so on). Second, they are as a default *speaker-oriented* in assertions of unembedded and unmodified sentences. That is, it is the speaker, and not any other subject, who must have the perceptual evidence in question.[23] And third, the evidential information cannot be *directly challenged* in conversation. That this holds for the evidential implications of appearance claims illustrated in (43).

(43) **A:** It looks like John is tired.

[23]The analogous observation about predicates of personal taste is that they are by default "autocentric" (Lasersohn, 2005).

B: No, you don't have visual evidence for that.

Although appearance language in English does not count as a grammatical evidential system in the sense of Aikhenvald 2004; Brugman and Macaulay 2015, it nonetheless serves to communicate information, about source of evidence, that is of the same kind as that communicated through grammatical evidentiality. And, moreover, it does so in a way that results in this information having a similar discourse status. In this respect, appearance verbs in English and grammatical evidentials in other languages both differ from expressions like 'I heard...' where the speaker having a certain kind of evidence becomes part of the literal content of the resulting sentence — only anchored to the speaker because of the pronoun 'I', and targetable by a direct challenge ('No, you didn't hear that').[24]

Furthermore, there is at least a preference for this to be only *indirect* evidence for the embedded claim. When the truth of the embedded claim is completely evident, requiring no inference, then the bare assertion would be more appropriate than the appearance claim:

(44) A is standing in the pouring rain.

a. **A:** It's raining.

b. ?**A:** It looks like it's raining.

In this respect, appearance verbs behave somewhat similarly to epistemic 'must' (Chapman et al., 2015; von Fintel and Gillies, 2010). However, though some theorists build an indirectness requirement into the semantics of 'must', it seems merely to be a pragmatic preference in the case of appearance reports.

Third, some theorists have proposed that the reason why appearance claims give rise to perceptual requirements, or the acquaintance inference in the first place is that they communicate a commitment to direct evidential-

[24]Of course, it is odd to challenge a speaker about what they heard, given that there is often a presumption that they would be better informed about this than their interlocutor. But this kind of oddness does not call for any special linguistic explanation. (Though compare Korotkova 2016a.)

ity.[25] This is consistent with the previous point, as the suggestion here is that with an appearance report, we convey commitment to direct evidence for the claim (say) that Tom *looks* like he's cooking, whereas the previous point was that we convey that we have only indirect evidence for the claim *that he's cooking*. I will return to this approach in §4.5.1, where I will consider how it compares to my own expressivist strategy for predicting the acquaintance inferences of appearance reports.

Fourth, the pattern that we have seen emerge with copy raising appearance reports fits within a cross-linguistic pattern of evidential constructions. Many languages have designated evidentials for claims based on perception in general, or specifically on visual perception; but none have designated evidentials for the specific senses of taste, smell, or touch (Aikhenvald, 2004, p. 64). The split that we have found, between the behavior of the general perceptual 'seem', and the visual 'look', on one side, and the rest of the specific sensory verbs on the other side, conforms to this pattern. While some languages have been found to have auditory evidential markers, many do not distinguish amongst the non-visual senses. In having uniform behavior across the sensory verbs other than 'look', English conforms to this pattern.[26] Furthermore, many languages have designated evidentials for claims based on hearsay or testimony. Representation-based 'sound'-reports seem to signal something similar in English. If this is right, then 'sound' has two importantly different evidential meanings — the one auditory perceptual, and the other testimonial.[27]

There is a great deal of variability in the perceptual requirements of ap-

[25]See e.g. Anand and Korotkova (2018); Muñoz (2019); Klempner (2018). For an alternative approach along the lines I will elaborate in Chapter 4: Franzén (2018), Charlow (2018). Note that once our target is explaining the origins of these requirements, it actually becomes implausible to ever build anything about *perception* into the semantics of the vocabulary in question (Ninan, 2014). This is a critique of the perceptual source approach to copy raising that is independent of those raised in this chapter, and I address it further in the next chapter.

[26]Of course, the sensory verbs in English are specific to particular sensory modalities. So in this way (as well as others — I'll return to this more in the next chapter) they are unlike the sensory evidentials identified cross-linguistically. The parallel that I am noting is rather in patterns of similarity and difference. Where it is common across languages to mark off the visual perceptual as distinct from the other senses, so we also see in English distinct behavior of the appearance verb 'look', as compared with the others.

[27]And 'look' and 'seem' may also have testimonial meanings, given that reports can be received visually as well as auditorally.

pearance reports. But we find more order in the picture than there may initially seem to be, once we appreciate parallels between appearance constructions in English and evidentials more generally.

3.6 Acquaintance, evidence, and evaluation

I began with an illustration of the acquaintance inference with assertions about matters of personal taste. These are evaluative claims, in the sense that they express a valenced judgment of the subject matter. I then transitioned to a discussion of the acquaintance inference with appearance reports, which are not necessarily evaluative in that sense. We saw that the acquaintance inferences of appearance reports are variable in a way that has no analogue in the evaluative cases. In particular, appearance reports call for a distinction between the specific acquaintance inference (that the speaker is acquainted with a specific individual), and the general acquaintance inference (that the speaker is acquainted with something or other relevant to the embedded claim). I have discussed in depth when each type of inference arises with appearance reports, and have suggested that recognizing the evidential role of appearance reports helps us to systematize and make sense of the observed behavior.

Having arrived at this point, a natural question is whether we have learned anything of relevance to the evaluative cases that we jumped off from. Here, I would like to mention three broad possibilities, as avenues for further investigation. The first is simply that we have identified two distinct sources of acquaintance inferences: evaluation and appearance-based evidentiality. It may just be that, possibly for different reasons, speakers must rely on their own first-hand acquaintance in making simple claims in both of these domains. However, more unification is tempting, as well as plausible.

This brings me to the second possibility, which is that evidentiality is the ultimate source of the acquaintance inference in all cases, evaluative and non-evaluative. Some theorists have suggested that the acquaintance inference has its origins in the speaker's commitment to direct evidentiality.[28] Then, the burden as far as the cases I've been focused on in this chapter are concerned, is to get clearer on the contents of copy raising reports of various kinds, to better understand why direct evidence for them takes different forms in the various cases observed. And moreover, we would need to get clearer on the comparison between the evaluative and appearance-based cases, in

[28]See e.g. Anand and Korotkova (2018); Muñoz (2019); Klempner (2018).

order to understand why the former invariably have the specific acquaintance inference. Perhaps this could be explained by assimilating them to perceptual source appearance cases, but this remains an open question.

A third option, which would also aim to unify the acquaintance inference across evaluative and non-evaluative language, is to find a "common cause" responsible for both. Here, a natural option is *experientiality* — and this is the view that I believe is most promising for accounting not only for the acquaintance inference, but also for other puzzling behavior of appearance language and the language of personal taste, such as the possibility of faultless disagreement.[29] The idea here is that simple assertions of all of these kinds serve to express features of the speaker's experience, and this experience in turn can provide evidence or be the basis of evaluation. This is the view I will develop in the next chapter.

[29]Other work that points in this direction to account for the acquaintance inference is found in Franzén (2018); Charlow (2018).

Chapter 4

Expressing experiences

We started by noting a parallel between certain appearance claims and simple claims with predicates of personal taste: both give rise to the inference that the speaker is acquainted with some specific individual.

(1) **A:** The cake is tasty. $\rightsquigarrow$ A has tasted the cake.

(2) **A:** Ben looks like he's cooking. $\rightsquigarrow$ A has seen Ben.

In the previous chapter, I called this the *specific acquaintance inference*, and contrasted it with the *general acquaintance inference* which is simply the inference that the speaker is acquainted with *something* of relevance, left unspecified. As we saw, some appearance claims, like those in (3) and (4), license only the general inference.

(3) It looks like Ben is cooking.

(4) Beth looks like she's well-organized.

While appearance claims are variable in terms of which types of acquaintance inferences they license, all simple claims with predicates of personal taste license the specific acquaintance inference.[1] I want to zoom out for a moment, away from thinking about the variability in acquaintance requirements across appearance reports, and instead towards thinking about the status of these

[1]There is, however, a caveat that applies to both appearance and personal taste cases, about more generic claims, like those in (i).

(i) a. Coconut cake is tasty.
b. The sky looks orange at dusk.

inferences with appearance reports and how we should predict them with an overall analysis of the language in question.

The simple semantics I worked with in the previous chapter is now no longer satisfactory. There, in order to explore the specific/general contrast, I followed others in hardcoding some kind of perceptual requirement into the semantics. This is incorrect, though, as I flagged at the end of the previous chapter (footnote 25). The acquaintance inference — either specific or general — is not well captured as part of the literal semantic content of appearance claims or claims about matters of personal taste. In this chapter, I'm going to present an overall picture that does better, but that can still incorporate the insights from the previous chapter.

Before getting to the substance of that discussion, however, I would like to revise some of the terminology I've been using. The terminology of the "general acquaintance inference", while useful for contrast with the specific inference, is not especially descriptive of what the inference actually is. Importantly, appearance reports don't just require acquaintance with *something*, but with something of *evidential relevance* to the truth of the embedded clause. For this reason, I will now call these "evidential inferences" (and "acquaintance inferences" will now simply refer to the *specific* acquaintance inferences that theorists initially had in mind under this label):

(5) **A:** Ben looks like he's cooking.
 $\rightsquigarrow$ A has seen Ben. Acquaintance inference
 $\rightsquigarrow$ A has visual evidence that Ben is cooking. Evidential inference

(6) **A:** It looks like Ben is cooking.
 $\not\rightsquigarrow$ A has seen Ben. No acquaintance inference
 $\rightsquigarrow$ A has visual evidence that Ben is cooking. Evidential inference

Thus, all appearance reports[2] give rise to evidential inferences. (A better label might be "perceptual evidential inferences", since the distinctive thing about appearance claims is that they require perceptual evidence, through

In these cases, I would hold that the specific inference is still present, but the relevant "specific" thing changes from an individual to a kind. Note that these are just ordinary generic statements (though of course subject to all the challenges that genericity comes along with, see e.g. Carlson and Pelletier 1995). This is independent of the possibility, suggested for instance by Moltmann (2010) and mentioned above in §2.2.3, that experiential claims involve something like generic quantification over experiencers.

[2]At least those with 'like'-complements embedding finite clauses; I'll return to other syntactic forms in §4.5.3.

the sensory modality associated with the matrix verb, for the embedded claim. I will, however, stick with the shorter label.) Only some give rise to acquaintance inferences. Furthermore, while all simple predications of predicates of personal taste give rise to acquaintance inferences, none seem to give rise to evidential inferences. But while evidential inferences are unique to appearance reports, the theoretical framework that I will present for capturing them can also tell us something about the origins of traditional acquaintance inferences.

Here is the plan for this chapter. I will turn in §4.1 to clarify the status of the evidential and acquaintance inferences. This will make two related points: first, that these inferences do not fit into standardly-recognized categories of inferences; second, that it is incorrect to build anything about perception into the literal content of appearance claims. Then, in §4.2 I will present an analysis of expletive subject appearance sentences, like that in (6), that takes them to denote properties of subjects' *experiential states*, rather than propositions as traditionally understood. This analysis combines elements of the Kratzerian modal semantics for copy raising constructions due to Doran (2015), with expressivist elements from Yalcin (2007, 2011); Charlow (2018). In §4.3, I'll explain how this approach straightforwardly predicts the evidential inferences associated with appearance claims, and may also be extended to capture the acquaintance inferences of both appearance claims and claims about matters of personal taste. In §4.4, I'll show how the experiential state analysis can also elegantly capture the phenomenon of faultless disagreement about both personal tastes and appearances. Finally, in §4.5, I'll discuss some remaining open questions for my approach.

4.1 Acquaintance and evidential inferences

Here, again, is our original example of an evidential inference licensed by an appearance claim:

(7) **A:** It looks like John is tired.
$\rightsquigarrow$ A has visual evidence that John is tired.

As outlined above, the content of this inference is distinct from the content of traditional acquaintance inferences, as in (8).

(8) **A:** John looks like he's tired. $\rightsquigarrow$ A has seen John.

But evidential inferences share with acquaintance inferences a puzzling status: they appear not to fit into any of the following standard categories of inferences: entailments, presuppositions, or implicatures. I will take these in reverse order below, before also considering a final more plausible option inspired by Ninan 2014 (with which my eventual proposal will share some features) that we are dealing with a kind of Moorean epistemic inference.

4.1.1 Implicature

To begin, neither acquaintance nor evidential inferences are standard Gricean conversational implicatures. These are inferences based on the literal content of a claim together with speakers' assumptions that their interlocutors are following maxims of cooperative conversation (Grice, 1975). Traditional tests for these inferences is that they can be canceled without contradiction, and reinforced without redundancy, as illustrated in (9) — showing that the inference from 'or' to 'not both' is a conversational implicature.

(9) a. Ann ate ice cream or cookies. In fact, both. Cancellation
b. Ann ate ice cream or cookies, but not both. Reinforcement

Of course, it is crucial that the sentence have the default implication to begin with: that is, that 'Ann ate ice cream or cookies' carry, as a default the implication that Ann didn't eat both. A justification of the inference as a conversational implicature more specifically also requires a story about why an 'or' sentence would naturally be taken to imply that the conjunction is false. The standard explanation here makes use of the maxims of quality and quantity: if the speaker believed the conjunction to be true, they should have said that; since they didn't, they probably think it's false; assuming they are well informed, infer that the conjunction is false. The point of the cancellation and reinforcement tests is to show that this inference is not an entailment of the 'or' sentence, but rather contributes distinct information, which speakers will of course often wish to contribute with such an utterance, but may also appropriately deny.

The acquaintance inference does not have this status. It cannot be felicitously canceled, as in (10).

(10) #John looks like he's tired, but I haven't seen him.

Indeed, this kind of sentence has been used precisely to motivate the existence of the acquaintance inference. That would hardly work if the inference could be canceled as with conversational implicatures.

An attempt to reinforce the inference, as in (11), while not infelicitous, is interestingly different from the reinforcement case in (9-b).

(11) John looks like he's tired; I saw him.

Here, the second clause explains one's basis for saying the first. This will be expected, given the account I'll go on to give. For now, the point is just that even though "reinforcement" doesn't clearly show that we don't have an implicature on our hands, it also doesn't speak in favor of implicature. So given the clear non-cancellability of the acquaintance inference, I conclude that it is not a standard Gricean implicature.

The evidential inference also resists cancellation, as in (12).

(12) #It looks like John is tired, but I don't have visual evidence that he is.

And again, and attempt to reinforce it, in (13), has the flavor of giving one's justification for the first clause, as with the acquaintance case in (11).

(13) It looks like John is tired; I have visual evidence for it.

4.1.2 Presupposition

A presupposition of a given sentence is a species of "projected content," meaning that sentences carrying these inferences continue to carry them, even when embedded in various environments in which ordinary entailments are canceled. The presence of a presupposition is traditionally probed through the "family of sentences" test (Chierchia and McConnell-Ginet, 1990; Tonhauser et al., 2013). That is, these inferences are drawn not only from a simple unembedded sentence, but also from its negation, a question formed from it, and other embedding constructions. To illustrate, all of the sentences in (14) imply that John used to smoke — showing that the pre-state of the change-of-state verb 'stop' is projective.

(14) a. John stopped smoking.
b. John didn't stop smoking.
c. Did John stop smoking?
d. John might have stopped smoking.

By contrast, only (14-a), implies that John no longer smokes — that is an entailment of (14-a), but as it does not persist in the family of sentences (14-b)–

(14-d), it does not project. There are many types of projective content with different properties. For our purposes, the important point is that though the acquaintance inference shares some behavior with projective content, it doesn't at all fit neatly into recognized categories of such content. And neither does the evidential inference.

There is some initial plausibility to the idea that acquaintance inferences are inferences to presuppositions, and they are analyzed as such by Pearson (2013). This is because the acquaintance inference appears to project in negated contexts, as in (15).

(15) a. **A:** The cake isn't tasty. ⇝ A has tried the cake.
b. #The cake isn't tasty, but I haven't tried it.

But as Ninan (2014) has shown, this is a misleading piece of evidence. Acquaintance inferences aren't plausibly presuppositions, as they fail to project out of many environments out of which presuppositions ordinarily do project. For instance, (16), with 'tasty' under epistemic 'might' is perfectly acceptable, although it denies the content of the acquaintance inference.

(16) The cake might be tasty, but I haven't tried it.

This doesn't definitively rule out the acquaintance inference being a very distinctive kind of projective content.[3] However, this would not be a very

[3]In the taxonomy of Tonhauser et al. 2013, it is of a type that doesn't have a "strong contextual felicity" condition: it need not already be part of the common ground that Ann have tasted the cake for her to say that it's tasty. It also seems not to have an "obligatory local effect": in belief reports, as in (i), it is not always the case that the attitude holder must (on pains of having inconsistent attitudes) believe the content of the acquaintance inference.

(i) Ann believes the cake is tasty...
a. but she doesn't believe she's tried it.
b. but she (knows she) hasn't tried it.

This last point, however, runs into challenging issues about the extent to which various attitude reports carry a presumption of indirect evidence, which may then interact with special features of experiential expressions. For note that while there may be no obligatory local effect in a 'believes' attitude report, there clearly is with 'find':

(ii) Ann finds the cake tasty...
a. #but she doesn't believe she's tried it.
b. #but she (knows she) hasn't tried it.

helpful categorization. Rather than taking the acquaintance inference to be an extremely constrained form of projective content, it is much more plausible that it is not, at bottom, projective, but that features of negated sentences for independent reasons are such as to preserve the inference.

In the same way, we can see that evidential inferences are not inferences to presupposed content on the standard understanding, as it too fails to project when embedded under the modal in (17).

(17) **A:** It might look like John is tired (you should check before deciding whether to put more make-up on him for the show).
$\not\rightsquigarrow$ A has visual evidence that John is tired.

Note that unlike with acquaintance inferences, the presupposition hypothesis doesn't even get any initial plausibility from negated cases when it comes to evidential inferences. The negated appearance claim in (18) does not preserve the same evidential inference as the unnegated version. Indeed, it instead licenses the inference that the speaker has evidence for the negation of the embedded claim.

(18) **A:** It doesn't look like John is tired.
$\not\rightsquigarrow$ A has visual evidence that John is tired.
$\rightsquigarrow$ A has visual evidence that John isn't tired.

This latter fact — that an evidential inference, though in negated form, persists with the negated appearance sentence — may just be due to the fact that appearance verbs like 'look' are "neg-raising": the negation, which appears syntactically as matrix negation, is naturally interpreted as embedded beneath 'look'. That is, (19-a) and (19-b) are naturally heard as equivalent.

(19) a. It doesn't look like John is tired.
b. It looks like John isn't tired.

If we instead force the negation to be interpreted at the matrix level, as in (20), then it's unclear that any particular inference about the speaker's visual evidence persists.

(20) It's not the case that it looks like John is tired.

I'll say a bit more about attitude reports embedding experiential sentences in §4.2.2.

4.1.3 Entailment

Acquaintance inferences are also not inferences to entailed content. The fact that acquaintance inferences project out of negated contexts is enough to rule this out, though we can also show it, as does Ninan (2014), by noting that the falsity of the acquaintance inferences does not seem to affect our assessment of the truth of the sentence giving rise to it. This can be seen through the oddness of claims like (21-a) — showing that the fact that the acquaintance inference is false doesn't automatically make the taste claim that licenses it false. And the same point can be made with counterfactual sentences, like (21-b): the intuition that such a counterfactual can be true shows that a supposition that the acquaintance inference is false doesn't necessarily affect the truth of the taste sentence.

(21) a. #The cake isn't tasty, because I haven't tried it.
b. Even if no one tasted it, this cake would still be tasty.

This same strategy shows that evidential inferences, though like entailments in failing to project out of negated contexts, also do not have the status of ordinary entailments.

(22) a. #It's not the case that it looks like John is tired, because I don't have visual evidence that he is.
b. Even if no one had been around to see, it would still have looked like that wall was about to fall down.[4]

Dependence of appearance or taste sentences on the *truth* of the acquaintance or evidential inferences seems wrong. Like acquaintance inferences, the evidential inferences associated with appearance claims seem to be tied to the felicity of utterances, rather than to definedness-conditions or truth-conditions. This is the idea that leads to the epistemic proposal that I turn to next.

4.1.4 Epistemic inferences

Ninan (2014) sketches one way of making good on the idea that acquaintance inference are tied to felicity conditions. More specifically, he suggests that acquaintance inferences are a sort of Moorean epistemic effect, arising from a combination of two factors: first, a *knowledge norm* of assertion (Williamson,

[4] I change to a different embedded claim here so that we can imagine there are no perceivers at all in the counterfactual scenario.

1996, 2000); and second, a *restriction on ways of knowing* facts about matters of taste (and, I would add, appearances). The idea is that one can't come to know that, say, the cake is tasty without having gustatory acquaintance with the cake; and so one can't assert that the cake is tasty without having had such acquaintance, because there is a norm to only assert what one knows.

This idea can be extended to evidential inferences as well. Say appearance claims convey that there is the appropriate kind of sensory evidence for the prejacent. Perhaps we can't know such a thing without experiencing that evidence ourselves. If so, then the same epistemic story that Ninan suggests to explain why the acquaintance inferences arise would also explain why the evidential inferences do.

While I believe this story is on the right track in many ways, it is not yet fully satisfactory. I will review three challenges it faces.

First, as Ninan himself acknowledges, the advocate of this view should be able to say more about why knowledge of matters of taste and appearances is restricted in this particular way. Franzén (2018, p. 5) makes this challenge more pointed by emphasizing that it seems that beliefs in these areas can have all kinds of positive features associated with knowledge (e.g. justification, certainty). So what's the missing mysterious element preventing us from bridging the gap from these strong epistemic states to knowledge? (Of course, someone like Williamson, who takes knowledge to be unanalyzable, may not be terribly moved by this worry.) Furthermore, as Klempner (2018) and others have emphasized, it is perfectly felicitous to make epistemic 'must' claims, as in (23), even without the relevant acquaintance.

(23) The cake must be tasty (I haven't tried it, but look at how quickly everyone is gobbling it up).

Second, it actually seems — at least as far as linguistic evidence is concerned — that we can have knowledge of experiential facts, even when the acquaintance and evidential inferences are not satisfied. As Muñoz (2018) points out, knowledge claims can be fully felicitous, even if one makes clear that one has only indirect evidence for the experiential claim:

(24) I know that the tripe is delicious ...
   a. because Alfonse made it.
   b. because it's made from honeycomb beef. (Muñoz, 2018, p. 11)

And the same observation holds for the evidential inferences of appearance

claims:

(25) I know that Smith's paintings look like they were made by children... because that's what the review said.

Muñoz strengthens this point with data from Standard Tibetan, a language that has distinct copulas for claims based on direct and indirect evidence. He shows that so long as the indirect copula is used, experiential claims are fine without acquaintance on the part of the speaker. And moreover, such a claim is actually *infelicitous* when conjoined with the denial of knowledge. This is a highly unexpected result, if the acquaintance inference is supposed to originate due to the impossibility of gaining knowledge of experiential matters without first-hand acquaintance.

Third, the epistemic approach faces the question of which predicates are associated with the proposed knowledge restriction. There may be a variety of possible answers here, but as Charlow (2018, p. 3) points out, a natural one is that it is predicates used to "express [features] of one's perceptual experience of an object." If something like this is correct, though, it seems that the epistemic story becomes unnecessary. Instead of taking expression of experience to explain facts about knowledge, and then facts about knowledge to explain facts about when it's appropriate to make certain assertions, we might explain the assertion facts *directly* in terms of the facts about experiential meaning. This, indeed, is the approach that I believe is most promising.

The analysis I turn to in §4.2 will hold onto the idea that the acquaintance and evidential inferences are tied to felicity of utterance. However, it cashes this out in a different way from the epistemic approach, thus avoiding these problems.

4.1.5 Explicitly relativized cases

This has so far all been about the acquaintance and evidential inferences of bare appearance claims. To round out the empirical picture, it is worth reviewing what becomes of these inferences when a claim is explicitly relativized with a 'to' prepositional phrase, as in (26).

(26) **A:** It looks <u>to Beth</u> like John is tired.

In such relativized cases, two key things change. First, the subject whose experiences matter is not the speaker, as in the bare cases, but rather the

one the claim is explicitly relativized to — Beth in (26). Second, the inferences no longer have the unique puzzling status just discussed for bare cases. Instead, there is a simple entailment that the experiencer's perception yield the relevant evidence.

(27) **A:** It looks to Beth like John is tired.
⇒ Beth has visual evidence that John is tired.

If Beth doesn't have visual evidence that John is tired, then the utterance in (27) is simply false. Moreover, that we don't have a presupposition on our hands can be seen from the fact that the inference is canceled under negation in (28-a), as well as in other entailment canceling environments, like the question in (28-b).

(28) a. It doesn't look to Beth like John is tired.
b. Does it look to Beth like John is tired?

Notice also that not only does (28-a) fail to imply that Beth has any visual evidence that John is tired, but it also is automatically true, if Beth doesn't have such evidence, as illustrated in (29).

(29) It doesn't look to Beth like John is tired — because she has no visual evidence that he is!

Whereas the unrelativized variant on (29) in (22-a) sounded clearly false, this case comes out true.

By contrast, acquaintance inferences become ordinary *presuppositions* in explicitly relativized cases (Anand and Korotkova, 2018, pp. 69–79).

(30) The cake is tasty to Beth. $\Rightarrow_p$ Beth has tasted the cake.

This inference persists in the family of sentences related to (30), as ordinary presuppositions do. For instance, in addition to the simple unnegated case in (30), the negated and question sentences in (31) equally imply that Beth has tasted the cake.[5]

[5]The following embedding constructions, however, do not seem to carry this acquaintance presupposition about Beth:

(i) a. The cake might be tasty to Beth.
b. If the cake is tasty to Beth, I'll have some too.

(31) a. The cake isn't tasty to Beth.
b. The cake must be tasty to Beth.
c. Is the cake tasty to Beth?

The same transformation of evidential and acquaintance inferences into more familiar types of inferences also occurs when the experiential constructions are embedded in subjective attitude ascriptions, as in (32), with 'find'.

(32) a. Beth finds that John looks tired.
b. Beth finds the cake tasty.

Though the acquaintance presuppositions and evidential entailments of explicitly relativized appearance claims are less puzzling than the inferences of the bare claims, they are data points that our final analysis ought equally to be able to capture.

4.2 The experiential state analysis

In this section, I will present an analysis of appearance claims that takes them to denote features of subjects' experiential states. Utterances of these sentences are used, in conversation, to express the possession of such experiential states. I build the analysis for expletive subject appearance sentences, such as (33), saving the copy raising constructions for later.

(33) It looks like John is tired.

There are two key pieces to the analysis, which I develop in the following two subsections in turn. First: a modal semantics for appearance constructions, on analogy with attitude reports (drawing on Doran 2015). Second: an

Neither of these sentences seem to require that Beth have tasted the cake (at least, not necessarily already).

There is also some delicacy in the case of the question in (31-c). The implication that Beth has tasted the cake doesn't seem to have quite the same status as presuppositions in other cases, as the contrast between (ii) and (iii) shows (thanks to John MacFarlane on this point).

(ii) Is the cake tasty to Beth?
I don't know, she hasn't tried it.

(iii) Has John stopped smoking?
I don't know, he hasn't started.

expressivist account of assertion (following Yalcin 2007, 2011 on epistemic modals; also Charlow 2018). The result is that appearance reports are used to express features of speakers' experiential states (without having anything about the speaker as part of their semantic content). This, as I'll discuss in §4.3, makes the right predictions about evidential inferences, and may be extended to acquaintance inferences as well.

4.2.1 Modal semantics for appearance claims

To derive the right meaning for expletive subject 'look'-sentences, like (33), I propose the following semantic value for 'look'.

(34) $[\![\text{look}]\!]^w = \lambda x_e.\lambda p_{st}.\forall w' \in B_v(x,w)[[\![p]\!]^{w'} = 1]$

Where $B_{\underline{v}}(x,w)$ is the set of "best" or most typical worlds left open by x's *visual* experience at w. $B_v(x,w)$ is determined with the help of a typicality ordering:

(35) a. **Typicality ordering:** For set of worlds X and set of "typical" propositions T, $\forall w, w' \in X, w <_T w'$ iff $\{p \in T : p(w') = 1\} \subset \{p \in T : p(w) = 1\}$

b. **Best visually accessible worlds:** Where $V(x,w)$ is the set of worlds left open by x's visual experience at w, $B_v(x,w) := \{w' \in V(x,w) : \neg\exists w'' \in v[w'' <_T w']\}$

In words, the set of best visually accessible worlds, for subject x at world w, is the set of worlds compatible with x's visual experience at w such that there is no other world that makes more of the typical propositions true. And then a sentence of the form 'it looks to x like p' is true at w iff p is true at all of x's best visually accessible worlds (at w). I'll apply this idea to an example shortly, but first, let me make a few other remarks about the approach.

First, while I develop this analysis with the example of 'look' throughout, it should be clear how to modify it to apply to the other specific sensory verbs. Whereas 'look' quantifies over the worlds compatible with a subjects *visual* experiences, 'smell' will quantify over the worlds compatible with their *olfactory* experience; and so on for the other sensory verbs. There is an open question about what the right extension to 'seem' would be. A natural thought, though, and one that it will be fine to have in the background for now, is that 'seem' quantifies over the worlds compatible with a subject's

overall perceptual experience.[6]

Second, relativization to times in addition to worlds may also be called for. For simplicity, I set that aside. I also leave out the tools needed to deal with ordinary context-sensitivity, such as for indexicals.

Third, I will leave the notion of "typicality" largely intuitive. There is some sense that some situations are more typical then others, even amongst options all compatible with my current visual experience. Tons of very strange worlds are, strictly speaking, compatible with a given visual experience. "Brain in vat" scenarios are only some of the more extreme that philosophers like to imagine. But less existentially worrying, we can imagine that A sees John with pale face and dark circles under his eyes. It's compatible with this that he's wearing ghastly make-up for some costume, or that this is his ordinary complexion — both scenarios in which, let's assume, he is not tired. Still, worlds in which either of those is the case are less typical, intuitively, than worlds in which John looks the way he does due to tiredness. This notion of typicality will clearly be affected by background knowledge, and so is surely context-sensitive in some sense.

Furthermore, what is considered typical for the purposes of interpreting some appearance clause may also be able to be affected by the linguistic context. For instance, *that people with dark circles under their eyes are tired* might be in the set of "typical" propositions at our context, but if we counterfactually suppose something that makes this less typical, as in (36), then the set of typical propositions used to interpret the appearance clause in the consequent should perhaps not include it.

(36) If it were the fashion to paint dark circles under one's eyes, then it wouldn't look like John was tired.

My intuition is not extremely clear on this point. It may be that we want to keep the notion of typicality tied to the context of utterance, regardless of shiftiness due to counterfactuals or other constructions.

Fourth, note that the clause in (34) takes 'look' to have an individual argument (intuitively, the experiencer), and a propositional argument (what things look to be like). I'll say a bit about each of these in turn.

The status of an "experiencer" in sentences with predicates of personal taste, as in (37), has been the subject of much debate — particularly about

[6]However, I must also add the caveat, also noted above §3.3.4 (footnote 11), that 'seem' as well as 'look' can be used in ways that doesn't seem to be perceptual at all.

the question of whether it should be thought of as a semantic argument or instead as an adjunct (Stephenson, 2007; Glanzberg, 2007; Schaffer, 2011; Collins, 2013).

(37) The cake is tasty to Mary.

I have made the choice, in (34), to treat the experiencer an argument in the appearance cases. All of the reasons in favor of experiencer arguments with predicates of personal taste carry over the appearance cases, and moreover, some arguments are even stronger in the appearance cases. For one, the acceptability of predicates of personal taste with experiencer prepositional phrases varies, as shown in (38).

(38) a. The cake is tasty to Mary.
b. The roller coaster is fun ?to/for Mary.
c. ?That T-shirt is cool to Mary.

Of course, this isn't definitive about the status of the experiencer in cases where it is fully acceptable. I just note this because it stands in stark contrast to experiencer phrases in appearance constructions, which are always one hundred percent acceptable. I give just a few examples in (39).

(39) a. It looks to Mary like John is happy.
b. The cake smells to Mary like it contains cinnamon.
c. The cloth feels soft to Mary.

Furthermore, selection of particular prepositions has been identified as a marker of argumenthood. For example, the clear requirement of a particular preposition for the target of 'proud' and 'pride' in (40-a) and (40-b) respectively, make a strong case for its being an argument. (As a reminder, I am using '#' as a general marker of unacceptability, neutral between various reasons that may lie behind it.)

(40) a. I am proud of/#in Sue.
b. I take pride #of/ in Sue.

Stephenson (2007) in fact takes this kind of consideration to speak in favor of experiencer arguments with predicates of taste, as she judges these predicates to be selective about which prepositions they require, as in (41) (with her judgments):

(41) a. fun for Sue / # fun to Sue
b. ??funny for Sue / funny to Sue
c. boring for Sue / ?? boring to Sue (Stephenson, 2007, p. 520)

Somewhat ironically, though, in attempting to make this case for experiencer arguments, she in fact illustrates how unclear the data supporting that view are.[7] By my own native speaker intuition, for instance, 'for' and 'to' are about equally acceptable with 'fun', and 'boring to' is fully acceptable as well. Again, I do not mean to use this as a definitive case against experiencer arguments with predicates of personal taste. Instead, I wish to highlight the contrast with appearance constructions: they uniformly require prepositional phrases headed by 'to', and there is a stark unacceptability of 'for' — much clearer, by my judgment at least, than any of the cases with predicates of personal taste.

(42) a. It looks to/#for Mary like John is happy.
b. The cake smells to/#for Mary like it contains cinnamon.
c. The cloth feels soft to/#for Mary.

I'm not concerned to make an argument here about the status of experiencers with predicates of personal taste. They may be arguments too, albeit somewhat unusual ones. I review these points only to justify taking experiencers in appearance constructions to be arguments of the appearance verb. (Even this is not crucial to my overall theory, though rejecting it would require some modification to the semantics given in this section.)

Also, as noted, I am taking 'look' to have a propositional argument — the way things look to be (*that John is tired*, for instance, in the main example I've been using). I have here followed Doran (2015) in taking this propositional argument to be embedded in appearance reports in the same way as the propositional arguments in attitude reports (Kratzer, 1981, 1991; von Fintel and Heim, 2002). Thus, in a way similar to the approach to epistemic modality advocated by Yalcin (2007, 2011), bare appearance sentences are something like attitude reports without attitude holders. And note that the 'like'-complement appearance sentences I'm focusing on at the moment are plausibly "epistemic" in the sense discussed above in §2.4.1. Thus, the connection between epistemic modal claims and epistemic appearance claims suggested there lends some credibility to the idea that a roughly analogous

[7] Thanks to Patrick Muñoz for discussion here.

modal analysis might work for both. Still, this is not the only way to approach the propositional argument in appearance sentences. I will discuss an alternative in §4.5.3.

Let's now turn to see the semantics for 'look' in action. First, it will be useful to apply it in an explicitly relativized case, with an overt experiencer prepositional phrase. After that I'll turn to the bare case, which is most central for the overall project of this dissertation.

(43) It looks to Beth like John is tired.

(44) $[\![(43)]\!]^w = 1$ iff $\forall w' \in B_v(\text{Beth}, w)[[\![\text{John is tired}]\!]^{w'} = 1]$

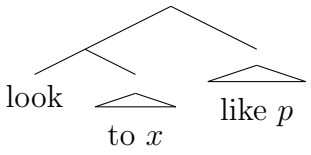
In words, (43) is true at w iff John is tired at all the most typical worlds left open by Beth's visual experience at w. (Note that this has the result that there is an *entailment* that Beth's visual experience is of a certain kind. This will be important for predicting the evidential inference to be an entailment in explicitly relativized cases.)

Now, let's move onto the more interesting case: the unrelativized, or bare appearance claims like (33), repeated here.

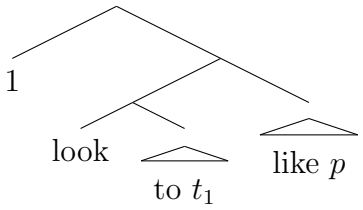
(33) It looks like John is tired.

Given the clause for 'look' above, we seem to have a problem. Nothing in this sentence is ready to saturate the individual experiencer argument. To deal with this (and to set the stage for the expressivist account of assertion to be given below), I follow Charlow (2018) in taking there to be abstraction over this argument. That is, the following two structures are both equally interpretable: (45) for explicitly relativized cases, (46) for bare ones. (Note: I assume both 'to' and 'like' are vacuous.)

(45)



(46)



The result, for the bare case, is the following:

(47) $[\![(33)]\!]^w = \lambda x.\forall w' \in B_v(x, w)[[\![\text{John is tired}]\!]^{w'} = 1]$

This is the property of individuals of having a visual experiential state according to which John being tired is typically true. In the next subsection, I'll turn to how these denotations enter into a theory of communication for appearance sentences.[8]

4.2.2 Expressing experiential states

The assertoric content of appearance claims like (33) is not a worldly proposition. Instead, it's a property of individuals, that constrains what their visual experiential state is like.[9] In uttering (33), the speaker *expresses* that their visual experiential state has a certain property, namely, of being such that John is tired is the most typical scenario, given that experience. Let's pause for a moment and think about what such a visual experiential state is like.

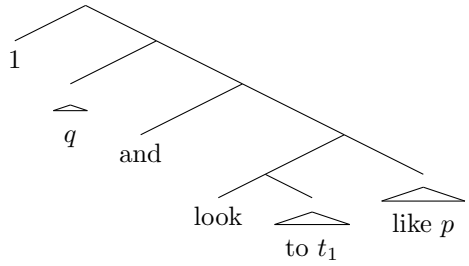
Recall, we are thinking of a visual experiential state as a set of worlds. Think of this set of worlds as determined by a set of propositions — roughly,

[8] What does this mean for coordination of experiential sentences with non-experiential ones, for instance in (i)?

(i) John is lying down and it looks like he's tired.

It is generally assumed that only elements of the same semantic type can be coordinated, and I have suggested that the second conjunct in (i) is of property type, while the first conjunct is presumably a propositional type. However, there is only a compositional problem if we assume that the abstraction must take place at the single clause level. There is no compositional problem with the structure in (ii). Applying it has the result that (i) denotes the property of having an experiential state of a certain kind and also its being the case that John is lying down.

(ii)



I'll return to this, and other more complex constructions involving bare appearance sentences at the end of the next subsection.

[9] In addition to drawing on ideas in Charlow 2018, this approach is also similar to that developed in Egan 2010 for predicates of personal taste, which in turn draws on ideas in Lewis 1979.

those propositions that some visual experience conveys.[10] The visual experiential state will be the set of worlds at which all those propositions are true. Visual experiential states that have the property denoted by (33) will include, for example, those determined by the following:

(48) a. {John is pale-faced, John has dark circles under his eyes}
b. {John is nodding off in his chair}
c. {There are several empty coffee cups left on John's desk}

Each of these states is such that John is tired in all their most typical worlds. When a speaker utters (33) they express that their visual experiential states has this property. Note, as illustrated by (48-c), the visual experiential state does not have to be one that includes information about John's own appearance.

Crucially, none of these visual experiential states *entails* that John is tired. Visual experience can be misleading. (49) can be a felicitous, and true.

(49) It looks like John is tired, but he's not.

So, in uttering (33) a speaker expresses that their visual experiential state is of a certain kind. But they do not assert that they are having a certain kind of experience. As a comparison, take (50-a) and (50-b), on an expressivist account of epistemic modal language.

(50) a. It might be raining.
b. My information doesn't rule out that it's raining.

On a certain theory of epistemic 'might', an utterance of (50-a) by a speaker S expresses a feature of S's information, namely that it has the property specified in (50-b). But (50-a) and (50-b) are not equivalent, and we would make incorrect predictions about the conversational impact of 'might' sentences if we were to take them to be simple assertions whose content is about the speaker's information. The suggestion here about appearance claims is

[10]There is an interesting question here about the relationship between these states and visual phenomenology. Note also that I am making the assumption here that we can get *some* information through experience, so I'm setting aside extreme forms of skepticism.

analogous.[11]

This approach to the assertoric content of simple bare appearance claims has implications for our semantic theory more broadly. I will close this section by sketching how a few cases might be approached in broad strokes. A more detailed full analysis must await future work.

First, as flagged in footnote 8, the most straightforward approach to coordinating constructions involving bare appearance claims, as in (51), would take them too to express properties of the speaker: properties of being in an experiential state of a certain kind, and also something else being the case.

(51) John is lying down and it looks like he's tired.

The same idea can be extended to complex sentences involving bare appearance clauses with other Boolean operators.

Second, there is the question of appearance verbs themselves embedding complex constructions. The analysis I've given takes appearance verbs to have a propositional argument, so complex complements denoting propositions are no problem. More challenging are cases where the complement might itself be non-propositional, as has been suggested for epistemic modal constructions as in (52-a), or even further appearance clauses on the present analysis, as in (52-b).

(52) a. It looks like it might be raining.
b. It looks like the milk smells like it's gone bad.

[11]That it would be a mistake to build anything about the speaker's experiences into the content of appearance claims can also be shown by the consistency of an appearance claim with the supposition that one is having an experience different from that claim, as in the cases in (i), by contrast with those in (ii).

(i) a. Suppose that it looks like it's going to rain, but you're hallucinating and it looks clear to you.
b. Suppose that you're hallucinating and it looks clear to you, when really it looks like it's going to rain.

(ii) a. #Suppose that your visual experience suggests it's going to rain, but you're hallucinating and it looks clear to you.
b. #Suppose that you're hallucinating and it looks clear to you, when really your visual experience suggests it's going to rain.

Still, though, there is the question of what exactly it is to undertake the suppositions in the first clauses of these sentences. Thanks to Seth Yalcin here.

In the embedded appearance case in (52-b), my sense is that the embedded appearance verb, 'smell', is heard "exocentrically," in the sense that it is relativized to an experiencer other than the speaker. Indeed, I would not want to rule out utterances of syntactically bare appearance sentences being used to communicate the relativized propositions communicated by the explicitly relativized cases. This is needed as much for appearance sentences, as in (53), as it is for classic exocentric uses of sentences with predicates of personal taste, as in (54) (Lasersohn, 2005).

(53) A explains why the dog can't learn the difference between the red and green balls.
A: They both look grey.

(54) A is observing her dog devouring his food.
A: This new brand of dog food is tasty.

If the embedded clause in (52-b) is (covertly) relativized, then it denotes a proposition, and there's no problem incorporating it into the analysis.

Still, however, I think we should be open to modifying the analysis so that the embedded clause need not be a possible worlds proposition. Take the appearance verb embedding the epistemic modal clause in (52-a). It doesn't really seem like the embedded 'might' is already covertly relativized to some information state. We would like to to be able to say that (52-a) expresses the experiential state such that its being possibly raining is most typical. But then what is "its being possibly raining" here? Ideally, we would not rule out it being itself a nonfactual matter, a feature of an information state rather than a world. To do so, we would have to modify our semantics so that the appearance verb can quantify not only sets of worlds (the best visually-accessible ones, as we had it above), but over sets of any kind of index relative to which the embedded clause might need to be evaluated. Then we could get the result that (52-a) is felicitous when one's visual experience makes having an information state that leaves open rain most typical. And this could happen even if one's information happens to rule rain out. One's visual experience can suggest something that one knows in fact not to be the case.

Third, there is the question of attitude ascriptions embedding appearance sentences. Some attitude ascriptions, like those in (55), may be well-captured if we take the attitude-holder to saturate the experiencer argument of the appearance verb.

(55) a. Mary finds that it looks like John is tired.
b. Mary thinks that it looks like John is tired.

Things are quite clear with the so-called "subjective" attitude verb 'find', in (55-a). There, we want the attitude ascription to be equivalent to the sentence where the experiencer in specified in a 'to'-prepositional phrase, and taking the subject of 'find' to saturate the experiencer argument gets this result.[12] And attitude ascription with 'thinks', in (55-a), also arguably has a use where it is equivalent to the PP-relativized appearance sentence. Only if 'thinks' is focused to we get the implication that Mary does not have the visual evidence herself. In that case, the 'think'-ascription is more like one with 'believe', like (56).

(56) Mary believes that it looks like John is tired.

Certainly, it would be incorrect to predict that (56) is only true if Mary believes that she herself has visual evidence that John is tired. (56) could be true because someone Mary trusts told her that he looked tired. Furthermore, we can consider non-doxastic attitude ascriptions, like (57).

(57) Mary wants it to look like John is tired.

It would be odd to say that (57) is true in virtue of Mary wanting to have a certain kind of visual evidence about John. Mary might not want to see John or anything related to him; and yet she could have the desire specified in (57).

This is all to say that it would be a mistake to take all attitude verbs to saturate the experiencer argument of appearance verbs. These verbs could, of course, embed exocentric appearance sentences. But this also doesn't seem adequate for (56) and (57). Does Mary have to want it to look *to someone* like John is tired, in order for (57) to be true? A full analysis of attitude ascriptions embedding appearance sentences should probably provide a way to embed bare appearance sentences, even understood non-exocentrically, and without the attitude holder saturating the experiencer argument — or at least, not in a way that predicts that they must have the relevant experience

[12]This is to take 'find'-ascriptions embedding appearance clauses to be like 'find'-ascriptions embedding predicates of personal taste as on Sæbø (2009)'s view. Indeed, I would want to say the same thing for the PPT cases. However, for an argument against this approach see Kennedy and Willer 2016.

themself. It may be that we want to predict that they are disposed to have the relevant kind of experience (I'll say a bit about a possible move to a dispositional theory in §4.5.2).

4.3 Predicting the inferences

With the experiential state analysis in hand, we are now in a position to predict some of the inferences licensed by appearance claims. I begin with the evidential inferences in §4.3.1, before returning to the acquaintance inferences in §4.3.2.

4.3.1 Evidential inferences

Return to our initial example of an evidential inference:

(58) **A:** It looks like John is tired.
$\rightsquigarrow$ A has visual evidence that John is tired.

According to the experiential state analysis, with (58), A expresses that her visual experience makes John being tired most typical. It's a small step from this to the evidential inference. For experiential states like these are (among other things) *sources of evidence* about the world. To have a visual experiential state with the property denoted by (58) is to have visual evidence for a certain proposition (recall: we do not take evidence to be factive here). So, in expressing her experiences, A at the same time communicates that she has evidence of a certain kind. We express our evidence by expressing our experiences.

On this approach, we capture the evidential inference as an inference to a sincerity condition on the given utterances (Charlow, 2018). If a speaker utters (58) without having visual evidence that John is tired, they present themselves to be in a mental state that they are not in fact in.

Thus, the badness of (59), on this approach is on a certain level of a piece with (60-a), given Gibbard 2003's expressivism about normative language, or (60-b), as well as the Moorean contradiction in (60-c).

(59) #It looks like John is tired, but I have no visual evidence for that.

(60) a. #ϕing is the thing to do in my present circumstances, but I don't plan to ϕ.
b. #Ouch! But I'm not in pain.
c. #It's raining, but I don't know it is.

The cases are similar in that the infelicity is due to the second conjunct denying a felicity condition on the first. However, the appearance case in (59) is importantly different from the epistemic Moorean case in (60-c) — contra the view discussed above in §4.1.4 — in that the sincerity condition violated in the appearance case doesn't involve the epistemic state of *knowledge* of speaker, but rather their *visual experience*.

Crucially, such sincerity conditions do not project out of embedded contexts (where embedding is possible, at least). The sentences in (61), for instance, do not imply that the speaker knows that it's raining.

(61) a. Is it raining?
b. It might be raining.

We thus do not make the same incorrect predictions as the presuppositional account discussed above in §4.1.2.

Sincerity conditions are also clearly not entailments, as shown in (62). We thus also avoid the pitfalls of the entailment view from §4.1.3.

(62) a. #It's not raining, because I don't know it is.
b. Even if I didn't know it, it would still be raining.

4.3.2 Acquaintance inferences

The expletive subject sentences analyzed so far do not give rise to the acquaintance inference, in the sense that they do not give rise to the inference that the speaker is acquainted with any particular individual. I now consider how the approach outlined so far may be extended to cases that also give rise to the acquaintance inference, as in (63).

(63) **A:** John looks like he's tired.
⇝ A has seen John. Acquaintance inference
⇝ A has visual evidence that John is tired. Evidential inference

To predict the acquaintance inference in addition to the evidential one, we need there to be some further constraint on the visual experience of the speaker. They must not only have visual evidence for some proposition, but they must have seen a particular individual. Furthermore, it seems it must be the visual experience of that individual that provides the relevant evidence. It would be odd to utter the sentence in (63) if one sees all the empty coffee cups on John's desk, but also sees John looking completely energetic (and let's say not in the hyper way induced by too much caffeine

that is presumably also consistent with tiredness). In fact, I believe that this seemingly required link — between the individual who must be perceived due to the acquaintance inference, and the evidence that must be had due to the evidential inference — might fall out of a plausible story that initially just aims to account for the requirements independently. I'll return to this in a moment.

How might we extend the experiential state analysis so that it predicts acquaintance inferences as well as evidential ones? An initial choice point is whether sentences giving rise to the acquaintance inference have different denotations than the expletive subject sentences. Compositionally, they are clearly different, with (64-b) having a substantive matrix subject that must somehow compose with the verb phrase. By contrast, we have assumed that the 'it' subject in (64-a) is semantically vacuous and just there for reasons of syntactic well-formedness (though see Rett and Hyams 2014 for an alternative treatment).

(64) a. It looks like John is tired.
b. John looks like he's tired.

But this compositional difference need not result in an ultimate difference in denotation for the sentence. Landau (2011) makes use of this fact, giving two entries for appearance verbs, like the following:

(65) a. $[\![\text{look}_1]\!] = \lambda p.looks'(p)$ Expletive subject
b. $[\![\text{look}_2]\!] = \lambda x.\lambda P.looks'(P(x))$ Copy raising

Both of these result in sentences that take 'look' essentially to be a propositional operator, and could therefore be unpacked according to the modal analysis given above in §4.2.1 (this sets aside the experiencer for the moment). On the face of it, this approach is not well-suited to capturing the acquaintance inferences of copy raising reports. It makes it challenging to see why there should be a difference in acquaintance requirements across the different syntactic forms. Indeed, Landau uses these two forms both for cases without the acquaintance inference — in his terminology, without the perceptual source requirement — and adds a third entry for the cases with the acquaintance inference/p-source requirement, with an extra individual argument (the p-source), as we saw in Chapter 3. We have also already seen some evidence that we need to complicate the story — from the "copy free" appearance sentences, like (66), which we saw above in §3.4.3.

(66) Pavi looks like the baby didn't sleep last night.

This 'look'-claim is importantly different from the copy raising cases seen so far, in that the embedded like-clause doesn't contain a "copy" pronoun that corefers with the subject. Thus, this kind of sentence cannot be captured with the semantics for 'look' given so far; we need another individual argument (in addition to the experiencer). It's tempting to call this the "stimulus", but I'm hesitant to use that term, given that in bare cases, we don't want to build into the semantics anything that suggests that something is being perceived. For the same reason, I distance myself from the label of "perceptual source", which has been used by many theorists in this context, as discussed in the previous chapter (Asudeh and Toivonen, 2012; Landau, 2011). The relevant individual here is the individual that has some appearance; and at least pre-theoretically, having some appearance doesn't require being perceived. (Whatever the philosophers may end up saying, as far as natural language is concerned, if a tree falls with no one around, it does make a sound.) So, despite the somewhat awkward label, let's call this individual the "appearer".

Though we don't want to build into the notion of an appearer that it must be perceived, there is still an important and recognizable idea of an appearance being manifested to a subject. The apple looks red even if no one is looking at it (even if no one has ever looked at it); but the apple can also look red *to you*. Its visual appearance can be manifest to you, in your visual experience. (Indeed, even the labeling the appearance "visual" might seem misguided. Perhaps something like "visually-accessible appearance" would be better.) If we are to extend the experiential state analysis to cover cases involving the acquaintance inference, we'll have to make use of this idea. Whereas an expletive subject report serves to express that one's visual experiential state gives evidence for some proposition, the copy raising report expresses that one's visual experiential state is one in which the manifestation of an individual's — the appearer's — visual appearance gives evidence for some proposition. If we describe the experiential state this way, then we build in the connection noted above: it must be the appearer's appearance that yields the relevant evidence. It's not enough that the appearance is manifest

and that the subject has evidence, perhaps from some other source.[13]

The overall approach exploits the richness of experiential states. They can be such as to give evidence; but they can also have other properties, such as involving the manifestation of a particular individual's appearance. However, not all of these properties can be captured with a notion of an experiential state as a set of worlds. It may have to be modeled as a set of worlds with some further structure. For instance, we might take experiential states to have both intentional and qualitative or affective components (where the modal semantics from §4.2.1 only so far captures the intentional side). This also harkens back to the distinction from Chapter 2, between experience in a narrow, qualitative sense, and experience in a broader sense, that also encompasses its informational import. The semantics developed here, primarily with a view to understanding the evidential inferences of ap-

[13]This approach may make welcome predictions about some other cases. For instance, it can happen that visual evidence from an individual's appearance contradicts the visual evidence from some more general scene. We mentioned such a case above, with the empty coffee cups being seemingly misleading evidence about whether John is tired, given John's own energized appearance. In that scenario, (i) still feels marked.

(i) ?It looks like John is tired, but John doesn't look like he's tired.

One might think that this could be true. Indeed, it won't be a necessary contradiction on the approach taken here. However, we can explain why it would sound marked, as long as we assume that with John himself looking a certain way, none of the most typical visually-accessible worlds will be such that he isn't tired. However, in other scenarios this assumption may not hold. Sometimes, a particular individual's appearance might be trumped by surrounding features. For instance, perhaps John is sitting in his office. It's immaculate and everything on the desks and shelves are perfectly arranged. However, he himself, is completely disheveled. In this scenario, perhaps (ii) can be true:

(ii) It looks like John is well-organized, but *he* doesn't look like he's well-organized.

(My sense is that focus on 'he' is needed.)

There are interesting questions about how this relates to issues discussed in Chapter 3. For note that 'tired' is a stage-level predicate, while 'well-organized' is an individual-level predicate. It seems not to be a coincidence that individual-level predicates affect the acquaintance inference with copy raising 'look' sentences (as we saw in §3.3.4), and also lend themselves more easily to scenarios like the one just described, where the surrounding evidence, not including John's appearance, can override the evidence from John's own appearance enough to make the first conjunct in (ii) true.

Though we also then run into the question of what exactly makes the second (copy raising) conjunct true. It seems that the expletive subject report cannot entail the copy raising one.

pearance claims, focuses on the broader notion. But in order to account for the range of features of appearance language, the qualitative will also need a place.

The acquaintance inference with simple sentences with predicates of personal taste can be accounted for with the same tools. The idea is that a sentence like (67) serves to express a purely affective feature of the speaker's experience (Franzén, 2018; Charlow, 2018).

(67) The cake is tasty.

And the same may be said for the "phenomenal" appearance cases, as in (68), that we discussed in §2.4.3.

(68) a. The cake tastes good.
b. The spread looks splendid.

One might wonder whether sentences as in (68) can be adequately analyzed using a modal semantics for the appearance verbs along the lines of §4.2.1. I'll return to this in §4.5.3.

4.4 Returning to faultless disagreement

The experiential state approach is well-suited to capture the acquaintance and evidential inferences licensed by utterances about appearances and personal tastes. However, a key selling point is that it can at the same time do a good job of explaining why these utterances give rise to relativist effects like faultless disagreement.[14] In §2.2, I discussed how a number of theoretical approaches can all account for faultless disagreement — they must just somehow cook up the "recipe for relativist effects," which can be accomplished in a number of ways. The expressivist approach developed here explains relativist effects in terms of compatibility and incompatibility between experiential states. Faultless disagreement arises when speakers express incompatible experiential states.

This has the virtue of divorcing the conditions that license felicitous denial (incompatible contents) from the conditions that make disagreement feel worthwhile to engage in (for instance, that there is some push to coordinate).[15] No matter how idiosyncratic the differences in experience, one

[14]See also Dinges 2017 for a discussion about capturing acquaintance and disagreement behavior in a unified way, for the case of predicates of personal taste.

[15]Related ideas are discussed in Egan 2010.

can always felicitously, as far as the language is concerned, disagree with a bare appearance or taste claim. This was very apparent with the infamous dress dispute — who cares what colors the dress looked to be? Clearly different viewers saw the image differently! And yet, exchanges like (69) are not linguistically marked, in the way that (70) is.

(69) **A:** The dress looks blue and black.
B: No, it doesn't!

(70) **A:** The dress looks blue and black to me.
\# **B:** No, it doesn't look that way to me.

One might still ask why we would ever engage in these disputes, if all we express is our differing experiential reactions. Here, the following thought from Charlow is apt:

> And, though there is something unfathomable — often palpably ridiculous! —about this, it would seem undeniable that human beings experience substantial (e.g., social) pressure to coordinate — i.e., agree — on their subjective assessments of their experiences. (Charlow, 2018, p. 19)

But I would add, further, that the kinds of appearance claims I've been focused on in this chapter actually make disagreement about appearances much less ridiculous than those that Charlow himself mentions at this point — namely the dress dress dispute, as well as a sightly less viral auditory dispute about whether a certain recording sounded like 'yanny' or 'laurel' (Wikipedia, 2019). It's important that the approach taken here can account for such cases. However, when we think about appearance claims used to express appearance-based evidence for appearance-independent matters, the sense that different perceivers ought to converge makes a great deal more sense. After all, the point of these appearance claims is arguably to try to figure out what the world is itself like, and that is something that, for all I've said, is the same for everyone.

4.5 Open questions

4.5.1 Comparison with direct evidentiality approach

An alternative approach to the acquaintance inference that has recently been defended derives it from a commitment to direct evidence, either as part

of the semantics of experiential vocabulary (Anand and Korotkova, 2018), or as a pragmatic commitment that interacts with the semantics of these expressions in a way that gives rise to the inferences (Muñoz, 2019). Applied to predicates of personal taste the story goes something like the following. The content of an utterance of 'This is tasty' is simply that some object has some property. But for some reason, these kinds of assertions come along with a commitment on the part of the speaker to having *direct evidence* for this proposition. And direct evidence for the object having the property of tastiness must involve gustatory acquaintance with that object. This is the outline of the explanation for why simple claims with predicates of personal taste give rise to the acquaintance inference.

This style of story can also be extended to explain why appearance claims give rise to evidential inferences. The idea (alluded to above in §3.5) would be that an utterance like, 'It looks like John is tired' just expresses the proposition that there is visual evidence for John being tired. But this kind assertion comes along with a commitment to direct evidence, and direct evidence for this proposition must involve having that visual evidence oneself.

The main difference between this style of approach and the experiential state analysis is that what the experiential state analysis explains through a distinctive view of the assertoric content of experiential claims (properties of subjects' experiential states), the direct evidentiality approach explains in terms of a commitment to direct evidence that can be attached to traditional propositional assertoric contents. In this sense, the direct evidentiality approach can be more conservative about content and communication than the approach I am advocating here.

This conservatism comes with an explanatory burden, however. The direct evidentiality approach should have something to say about why the commitment to direct evidentiality comes along with assertions involving experiential predicates but not other kinds of predicates. For direct evidence that, say, John is six feet tall, also requires some kind of acquaintance with him; but an assertion of 'John is six feet tall' clearly does not give rise to the acquaintance inference. It is a key part of the direct evidentiality approach that *not all* simple assertions come along with the commitment to direct evidentiality. It's something special about experiential claims. This isn't to say that no story can be told here (Muñoz (2019) as well as Klempner (2018) have some promising ideas).

Furthermore, the appeal to a more traditional view of propositions comes with its own drawback. What is the property of tastiness, say, that this

approach takes taste sentences to be about? Here, the direct evidentiality view faces the challenge mentioned in Chapter 2 for objectivist accounts of predicates of personal taste. What is the property of being tasty, full stop? And can we make sense of faultless disagreement about it? One approach here, roughly that of Muñoz (2019), is that speakers disagreeing faultlessly about whether something is tasty differ in the *meaning* they associate with the word 'tasty'. Thus, faultless disagreement about experiential matters becomes an instance of metalinguistic disagreement in the sense of Plunkett and Sundell 2013. However, it is importantly different from the standard cases of metalinguistic disagreement, where the disagreement is over matters of meaning that can be settled by stipulation, as in (71).

(71) a. **A:** Pluto isn't a planet, because the new International Astronomical Union definition says it's not.
b. **B:** I don't care about that, Pluto is a planet!
c. **A:** Look, for the purposes of this conversation, let's use the IAU's definition; so Pluto is a planet.

When it comes to experiential terms, as in (72), this kind of stipulative move is bizarre.

(72) a. **A:** This cake is disgusting.
b. **B:** No, it's tasty!
c. ??**A:** Look, for the purposes of this conversation, let's use my tastes as our guide; so this is disgusting.

The metalinguistic negotiation story, extended to cover disagreement over experiential matters, must thus posit a norm that one only use experiential terms, like 'tasty' or 'disgusting' to apply to things that give rise to the relevant kind of experience in oneself. The experiential state analysis would instead account for the oddness of (72-c) by the fact that speakers recognize that experiential claims express features of their experiential states, and that experiential states with these features cannot be imposed on others merely by uttering some words. This follows straightforwardly from the nature of experiential states, and requires no special norm to be recognized.

This is to highlight two main issues facing the direct evidentiality approach but not the experiential state analysis. I don't by any means intend it to settle the matter between them, though. More questions also face the experiential state analysis, as I will discuss in the coming subsections.

4.5.2 Communication and coordination

The experiential state analysis has the advantage of offering a very straightforward explanation for the infelicity of making an experiential claim without having the relevant experiential acquaintance or evidence oneself. However, this advantage also leads to the question of what the point of such claims are, when there is seemingly no opportunity for coordination on these states.[16] To bring this question out further, contrast the following two cases.

(73) A and B are both looking at an image of a dress, and experience its color appearance differently.
A: This dress looks blue and black.
B: No, the dress looks white and gold.

(74) A is talking on the phone with B. A is looking at an image of a dress, and it looks blue and black to her. B can't see the image.
A: This dress looks blue and black.
B: Cool, it'll fit with the color scheme at C's wedding then. You should buy it.

In (73), we have said, there is faultless disagreement because the two speakers have incompatible experiential states: the one such that it makes the dress being blue and black most typical, the other such that it makes the dress being white and gold most typical.[17] B will not accept A's claim, because it expresses an experiential state that is incompatible with B's own. So far, so good.

But what is going on in (74)? There, the idea of coordinating or failing to coordinate on one's experiences of the dress just does not seem to come up. When B accepts A's claim about how the dress looks, what does she accept? It may be that she accepts that, were she to see the dress and have a visual experience of it, that experience would be such as to make the dress being blue and black most typical. But in accepting A's claim, B does not come to be in such a state. That can't happen without her seeing the dress!

Here, we run into a potentially worrying disanalogy between the expressivist approach being developed here, which appeals to the expression of experiential states, and other recent expressivist theories from Gibbard and

[16] Thanks to Dilip Ninan for discussion here.

[17] Note, this is to assimilate these appearance claims, with only adjectival complements, to the 'like'-complement cases I've been focusing on in this chapter and the last. I'll say a bit more about these other forms of appearance sentences in §4.5.3.

Yalcin, which appeal to the expression of states of planning and information, respectively. For the latter sorts of mental states are ones that one plausibly can enter into merely by accepting someone else's assertion — one can thereby come to accept new plans, or having new information. But one can't, merely by accepting an assertion, come to have new experiential states — at least, not in all the cases where it does nonetheless seem like one can accept what one is being told. And the more we might tweak experiential states to be such that one might get into them more easily, the less we are able to account for the close tie between those states and assertions of experiential sentences.

This tension between accounting for the acquaintance inference while still making sense of communication and coordination comes out in particular if we consider one natural option to pursue in response to this worry: namely, moving to a dispositional conception of the states in question. Perhaps the experiential state one expresses with 'The dress looks blue' isn't the state of *having* a visual experience of the dress that makes it being blue typical, but rather, of being *disposed* to have such an experience, were one to see the dress. (Indeed, it is dispositional properties that Egan (2010) takes us to self-attribute in making assertions about matters of taste and aesthetics; and it's thus probably not a coincidence that he is focused on explaining the disagreement data and not the acquaintance inference.) We could of course say that, for some reason, it's infelicitous to self-attribute dispositions to have certain experiences, without having had those experiences manifested in oneself. This would bring into our story some elements that the direct evidentialist, discussed in §4.5.1, also appeals to. However, this amendment would avoid some of the metaphysical mystery of the direct evidential approach as sketched above; for here, we would not have to recognize properties of tastiness or of looking blue, full stop, but rather only properties of being tasty or of looking blue *to experiencers*, and experiencers being disposed to be affected in those ways.

It thus remains an open question whether to keep the original characterization of the property expressed by appearance claims from §4.2, or modify it in a way that may make the account of communication and coordination more natural, but the account of the acquaintance inference less direct.

4.5.3 More appearance sentences

In §4.2 I have offered an analysis designed for a subset of appearance sentences: those with 'like'-complements embedding finite clauses, such as the

expletive subject form in (75-a) and the copy raising form in (75-b).

(75) a. It looks like John is tired.
b. John looks like he's tired.

Some appearance sentences that aren't of these syntactic forms may also be adequately covered by that analysis. These include cases where the appearance verb embeds a 'that'-clause, as in (76-a), as well as cases where the verb has a nonfinite complement, as in (76-b).

(76) a. It seems that John is tired.
b. John looks to be tired.

These also include some cases, as in (77), where the appearance verb embeds a small clause out of which the subject has been raised.

(77) a. John looks tired.
b. The cake tastes vegan.

While there does not perhaps appear to be a full propositional argument embedded under the appearance verbs in these cases, they are adequately analysed by assuming that there are such arguments. In other words, the meaning of 'John looks tired' is well-captured if we take it say that John's visual appearance gives evidence that he is tired. In other words, there is a felt equivalence between the sentences in (78).

(78) a. John looks tired.
b. John looks like he's tired.

But not all appearance sentences are like this. Exceptions are cases falling into the category of "phenomenal" appearance reports, from §2.4.3. In other words, (79-a) is not felt to be equivalent with (79-b).

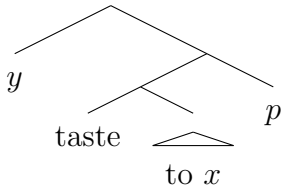
(79) a. The cake tastes good.
b. The cake tastes like it's good.

(79-a) is most naturally heard to mean that the cake has a pleasing taste, not that the cake's gustatory appearance gives evidence that the cake is good, as (79-b) is naturally heard. This contrast comes out especially if we consider wine instead of cake, as wine more often than cake is judged for quality at least somewhat independently of how pleasing its flavor is.

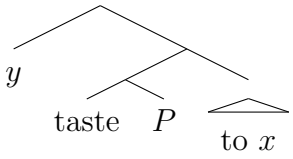
Someone might hate wine but nonetheless have a very discerning palate, capable of identifying fine wines by taste. Such a person could certainly say that some wine 'tastes like it's good'. But it would be odd for them to say that it 'tastes good'. In the terms of Chapter 2, this is to say that, while (79-a) is a phenomenal appearance claim (or at least, is most naturally used in that way), (79-b) is an epistemic one. And while the modal experiential state analysis is well-suited to epistemic appearance claims, it seems less apt for phenomenal ones. The reason is that phenomenal appearance claims do not seem to be accurately broken down into an appearance verb and propositional argument, where that proposition is specified independently of the appearance verb. The proposition *that the cake is good* just doesn't seem to be a constituent in the phenomenal appearance claim at all; and it is a commitment of the modal analysis that some proposition about the subject, but not yet involving the appearance verb, is a constituent.

There are two broad approaches we could take at this juncture to deal with phenomenal appearance sentences.[18] The first simply takes the modal analysis to be restricted to epistemic appearance claims, and gives an alternative analysis for phenomenal ones. The structure in (80) (based on (45), but with the addition of the appearer argument, y, and switching from 'look' to 'taste') applies to epistemic cases, while that in (81) is for the phenomenal ones.

(80)



(81)



With the structure in (80), a sentence like (79-b) will be interpreted roughly to say that the cake has a gustatory appearance that makes the cake being good most typical.[19] It involves the verb 'taste' composing with two individual arguments and a propositional argument.

By contrast, with the structure in (81), a sentence like (79-a) will be interpreted roughly to say that the cake is good-tasting. I leave unanalyzed

[18] I first explored these two approaches in work presented at NASSLLI 2016 at Rutgers University. An approach similar to the first option is also offered in Charlow 2018.

[19] This isn't officially quite right, of course; for on the experiential state analysis, this sentence isn't used to state a proposition, but rather to express that the speaker's gustatory experiential state is such as to make the cake being good most typical.

what exactly "good-tasting" amounts to here, and how it is a function of the meanings of 'good' and 'tastes'. They key point is that the verb 'taste' first composes with a property-type argument, 'good', to form a complex (relational) property of being good-tasting (to an experiencer). Never does the proposition *that the cake is good* enter into this composition.

A second approach would not posit such a structural difference across appearance sentences, but instead locate all the difference in the interpretation of the embedded adjective. We said that the most natural interpretation of (79-a) is not well captured by taking the proposition *that the cake is good* to be a constituent. However, that is a bit quick. The adjective 'good' has an extremely flexible meaning. Depending on the context, one could say (82) to mean that the cake tastes good, or that it is lavish enough to satisfy the wealthy person whose party it is for, who, we may imagine, doesn't really care about its taste, or that it has any other feature that for some reason we are currently looking for in a cake.

(82) This cake is good.

Perhaps, then, we can leverage this flexibility already present with adjectives like 'good' to account for the felt difference between epistemic and phenomenal appearance sentences in a way that doesn't need to posit any structural ambiguity. The idea would be that in the phenomenal case, the embedded adjective is most naturally interpreted such that the relevant dimension — of goodness, in this case — is with respect to the appearance corresponding to the verb, so that 'tastes good' in (79-a) is naturally heard as equivalent to 'tastes like it's good in way of tastes'. The phenomenal appearance sentence in (79-a) can thus after all be accurately analysed by taking the appearance verb to have a propositional argument; it just must not be a proposition about appearance-independent goodness. But the adjective 'good' doesn't have to be used to talk about appearance-independent goodness.[20]

While this approach has the advantage of structural uniformity, it also faces challenges. At least as stated so far, it's mysterious why there should be such a felt difference between the small clause and 'like'-complement sen-

[20]To get a phenomenal appearance claim, is it enough to specify the relevant respect or dimension? For instance, consider:

(i) You're sampling cakes for your friend Mary's birthday. She loves chocolate, but you dislike it. You try a very chocolatey cake.
You: This cake tastes good.

tences in (79). The approach just sketched shows how the phenomenal reading could arise, given the structure in (80); but it doesn't have anything to say about why the two surface syntactic structures result in different intuitive understandings. There may be a story to tell here, perhaps about competition between the different, more or less complex, surface syntactic forms.

However we end up accounting for the difference between phenomenal and epistemic appearance claims, the broad expressivist approach to the acquaintance and evidential inferences defended here can apply. On the structural ambiguity view, an open question will remain about how to specify the experiential states expressed by phenomenal appearance claims. A promising idea, though, is that they are similar to those expressed by simple claims with predicates of personal taste in being more purely qualitative or affective than intentional (§4.3.2). To the extent that this predicts the acquaintance inference with predicates of personal taste, it will also predict it with phenomenal appearance claims. On the other hand, if we opt for structural uniformity, assimilating all appearances sentences to the structure in (80), then the explanation will go by analogy with the epistemic cases. An utterance of (79-a), for instance, will express that one's gustatory experience gives evidence that the cake is good (in way of tastes). And this also plausibly means having an experience of the cake with a certain pleasant quality.[21]

Another form of appearance sentence that I haven't discussed yet is that in (83), where there is a 'like'-complement, but embedding not a finite clause but instead just a noun phrase.

(83) John sounds like a frog.

Clearly, it's goodness is respect of taste that is relevant here. And yet, I feel an intuitive difference between this case and paradigmatic "phenomenal" appearance claims. Perhaps we should also include in the definition of the phenomenal case that the person whose standards are relevant for the application of the adjective must be the same as the person whose experiences are relevant to the interpretation of the appearance verb. And perhaps once all the relevant distinctions are identified, "phenomenal" turn out not to be a very useful categorization anyway.

[21] At this point, though, we run into the further interesting of how to understand experiential predicates embedded in (epistemic) appearance constructions. If the appearance construction is interpreted as I've suggested, then we must ask what it is to have evidence for the presence of an experiential property — when that too is understood expressivistically.

These are importantly different from the 'like'-complement cases I focused on in earlier in this chapter and in the previous one. This comes out, for instance, by noting that the expletive subject and copy raising cases 'like'-complement cases are equivalent with sentences with 'as if'-complements, as shown in (84). By contrast, the noun phrase cases are ungrammatical with 'as if', as seen in (85).

(84) a. It looks like John is tired. ≈ It looks as if John is tired.
b. John looks like he's tired. ≈ John looks as if he's tired.

(85) John sounds like a frog. ≉ #John sounds as if a frog.

Instead, (83) is felt to be equivalent to a paraphrase about *similarity*, as in (86).

(86) John sounds similar to a frog.

However, this kind of paraphrase doesn't always seem quite right for appearance sentences with NP embedding 'like'-clauses, as shown in (87).

(87) You describe your friend John to A, who has never met him.
A: John sounds like a nice guy.
≉ John sounds similar to a nice guy.
≈ John sounds like/as if he's a nice guy.

Appearance sentences of this form that are felt to be equivalent with their finite 'like'-complement variants, as in (87), may easily be assimilated to the modal experiential state analysis from §4.2. But what of the others — those that instead seem to be pointing to a judgment of similarity like (83)?[22] These cases fall into the category of "comparative" appearance claims, as discussed in §2.4.2. It would be a stretch to apply the analysis from §4.2 to them. For instance, say one utters (83) because John has a croaky voice, as if he's getting over a bad cold (it is completely obvious and common ground that John is a human being). It would be bizarre to suggest that (83) is true in this scenario because one's auditory experience of John makes *John's being a frog* most typical. Instead, one wants to say that it's true because John's

[22]To deal with cases like these, Lasersohn (1995) suggests an ambiguity in the word 'like' — one version of which is semantically empty, the other that means basically "similar to". My question is now what to do with the latter cases in the framework I've been developing.

auditory appearance resembles, in some respects but of course not others, the auditory appearance of a frog. Bledin and Srinivas (2019) offer an analysis along these lines, and in fact apply it explicitly only to appearance cases with 'like'-complements embedding finite clauses. For instance, on their view, the copy raising sentence 'Tom looks like he's cooking' is true, roughly, just in case Tom's appearance is in some relevant respect similar to how he (or his counterpart) looks in the most normal worlds where he is cooking. This takes the proposition *that Tom is cooking* to enter into the analysis of the copy raising sentence in quite a different way from how I have it above. It no longer takes the appearance sentences to be a sort of species of attitude report, and instead assimilates them to comparative claims about things other than appearances, like 'Dev swims like he's a professional'. (A similar approach is taken by Breckenridge (2018).) It is thus an avenue worth further exploring that "epistemic" appearance claims may be viewed as special cases of comparative ones.[23]

Overall, then, a major avenue for future investigation is the extent to which the experiential state analysis can apply across the whole variety of appearance constructions.

[23]A virtue of this approach is that it may be in a good position to incorporate the machinery needed to account for gradability in appearance constructions, as illustrated in (i) (also noted above in §2.4.2, footnote 40) — as similarity is already a gradable notion.

(i) Tom looks more like he's running than (like he's) walking.

However, it is also worth exploring other approaches to gradable modality that might keep the connection with attitude ascriptions more intact, e.g. Koev 2019; Lassiter 2017.

Chapter 5

Conclusion: experience and evaluation

The project here has centered on appearance language — of interest in its own right, as well as crucial for probing what's really at issue in previous discussion focused on evaluative language, such as the language of personal taste. As I discussed in Chapter 2, there is a natural class of experiential predicates, which encompasses both predicates of personal taste and appearance predicates. And the experiential state analysis presented in Chapter 4 predicts both puzzling features of these expressions that I began with in Chapter 1: first, their ability to be involved in faultless disagreement, and second, their licensing of the acquaintance inference. I suggest that the focus on predicates of personal taste, which fall in the intersection of the sets of evaluative predicates and experiential ones, has muddied the waters, leading to disproportionate focus on evaluative language in the context of debates about possible revisions to traditional semantic frameworks. Really, I contend, the puzzling features are due to the role of subjective experience in these areas of discourse. Faultless disagreement arises when speakers express incompatible experiential states; and the acquaintance inference arises because it's infelicitous to communicate being in an experiential state that one is not in fact in.

In this brief concluding chapter I would like to take a broader look back at evaluative language, and consider how doing so may inform the prospects of the experiential approach I've developed.

Certainly, I am not claiming that *all* evaluative language is experiential. Moral language is not, and aesthetic vocabulary arguably isn't either, as it

fails to have all the markers of experiential language discussed in §2.3. For instance, modification by experiencer prepositional phrases is often infelicitous with aesthetic adjectives, as in (1).[1]

(1) ??The vase is beautiful to me.

But morality and aesthetic value have also been claimed as the subjects of faultless disagreement.[2] And aesthetic judgment was the original source of discussion about the acquaintance inference, tracing back as far as Kant 1790. While no one has to my knowledge claimed that moral claims are infelicitous without *perceptual* acquaintance, there has been much debate about the status of testimony about morality, and skepticism about the appropriateness of arriving at moral judgments on the basis of testimony.[3] There is the sense that certain grounds, sufficient for making ordinary factual claims, are lacking when it comes to evaluative claims of all kinds, including about morality.[4]

We seem to have faultless disagreement about appearances, matters of personal taste, aesthetic matters, and morality. And we have the acquaintance inference licensed also with claims about appearances, matters of personal taste, and aesthetic matters; and we have something somewhat similar — namely, resistance to relying solely on testimony — with claims about morality. If we have a unified phenomenon on our hands here, then that might seem to cast doubt on my focus on experientiality, as it only uncontroversially applies to the first two items on the list.

To respond, let me first reemphasize that in this project I have been primarily interested in the sources of faultless disagreement and the acquaintance inference with appearance language. And I hold that, having found such sources in the experiential meaning of appearance terms, we should also extend the analysis so that it equally locates these sources for the same features with predicates of personal taste. Experiential meaning — in the form

[1] See McNally and Stojanovic 2017, who also note that "despite the existence of various songs with the title 'Beautiful to Me', a Google search yields very few examples of 'to'-phrases with 'beautiful' in ordinary text" (p. 31).

[2] See e.g. Kölbel 2002. And just as in the experiential domains, some argue that the data is consistent with moral objectivism, e.g. Hills 2013a.

[3] See e.g. Hopkins 2007; McGrath 2009, 2011; Hills 2013b.

[4] See Klempner 2018 for detailed treatment of the phenomenon in the aesthetic case, that also includes discussion of the cases of morality, personal tastes, and some appearances.

more specifically of the experiential state analysis and its possible extensions discussed in Chapter 4 — is the key to understanding faultless disagreement and the acquaintance inference with *experiential language* — a category that includes appearance vocabulary and predicates of personal taste.

This picture does not rule out faultless disagreement or the acquaintance inference with other vocabulary arising for other reasons. Non-experiential language very plausibly gives rise to faultless disagreement, and it can do so for a variety of reasons — differences in information with epistemic modals, or differences in stakes for knowledge ascriptions, or differences in thresholds for gradable adjectives, just to name a few cases that have been discussed in the literature. Along these lines, then, if there is faultless moral disagreement due, for instance, to differences in moral standards or norms, that is perfectly consistent with my claims about the source of faultless disagreement with experiential vocabulary.

Likewise, my claims are fully consistent with the existence of the acquaintance inference, or acquaintance inference adjacent phenomena like testimony resistance, with non-experiential vocabulary — perhaps arising for epistemic or evidential reasons. When it comes to testimony resistance with morality, there is a clear case to be made that we are dealing with a phenomenon that, while similar in some respects to the acquaintance inference with experiential terms, is nonetheless to be explained quite differently. For one, the data are much less clear. In many contexts that have been prevalent in human history, for instance in religious communities, testimony is viewed as a fully acceptable — indeed, perhaps, the dominant — basis for moral claims.

Furthermore, the kind of testimony resistance that we find about morality seems to be of a piece with testimony resistance in cases where the objectivity of the domain in question is not in doubt. First, there is a general oddness in relying solely on testimony when it comes to issues that are known to be controversial; and the moral issues used in presenting the phenomenon of testimony resistance, like the moral status of meat-eating, for instance, tend to be controversial. Second (though also not distinct from the point about controversy), there is testimony resistance about philosophical matters in general. It would be odd to accept, say, modal realism, solely because one knows that an expert in metaphysics believes it. If moral inquiry is an instance of philosophical inquiry more generally, then it's not surprising that

the same testimony resistance would show up.[5] There isn't much reason to think that testimony resistance about general philosophical matters, or about controversial matters in general, are due to the role of experience in the discourses in question. So if testimony resistance in morality is of the same kind, then I can happily recognize it, while, however, keeping its explanation distinct from that of the acquaintance inference with experiential language — where an explanation drawing on subjective experience is compelling.

Things are more delicate with the acquaintance inference with aesthetic matters. There is a much closer parallel between the acquaintance inference with aesthetic claims and the acquaintance inference with experiential claims. Across all these cases, it is straightforwardly a certain kind of *experience* that the speaker has to have in order to felicitously make the claims in question. Moreover, the lack of the relevant experience is compatible with full confidence, and likely even knowledge (as we saw in §4.1.4) of the claims in question. There is really just something about the bare assertion that is marked if the acquaintance requirement is unsatisfied. By contrast, my sense is that in the moral cases (and others that are arguably of a piece with them, as just discussed), the resistance to making a simple assertion also comes along with some other kind of doubt or at least hesitation about the issue in question. In other words, it's easy to imagine scenarios where the first but not the second sentences in (2) and (3) would be appropriate to utter. It's harder for me to imagine the same situation for the sentences in (4).

(2) I'm sure the cake is tasty.
The cake is tasty.

(3) I'm sure the painting is beautiful.
The painting is beautiful.

(4) I'm sure eating meat is wrong.
Eating meat is wrong.

I will close by mentioning two broad options here for how to think about aesthetic language within my approach. The first is to restrict the experiential state analysis only to the clearly experiential language of appearances and personal tastes, leaving the related phenomenon with aesthetic language to be explained in a way that is more unified with the moral cases. While this

[5]This line of reasoning is inspired by Shafer-Landau 2006. Thanks also to Dilip Ninan for discussion.

would leave the linguistic scope of my project clearly delineated, it may lead to some doubt about my approach. For if we can give an adequate explanation of faultless disagreement and the acquaintance inference with aesthetic claims in a way that doesn't appeal to experiential meaning in the way I've done for appearance predicates and predicates of personal taste, then perhaps this approach could just be extended to cover the clearly experiential cases as well. So, unifying the aesthetic cases with the moral may turn out to be a first step towards undoing the reliance on experientiality that I have proposed.

The second option is to bring aesthetic language into the fold of the experiential state analysis that I've proposed for the clearly experiential cases. This would leave us with an intuitive view, on which experientiality explains faultless disagreement and the acquaintance inference in precisely those cases where the judgments in question are related to subjective experience in the ways introduced in Chapter 1. However, the linguistic unity of the vocabulary in question is not extremely clear. On this line, a main topic for further research is how to understand the experientiality at issue in a way that still respects important differences between aesthetic language and the language of personal tastes and appearances.

Evaluative language has great variety, just as experiential language does — as has been on display throughout this dissertation. Theorists have already made a lot of progress on evaluative language, and unpacking how all the variety there interacts with all the variety within experiential language is a task left very much unfinished in this work.

Bibliography

Aikhenvald, A. (2004). *Evidentiality*. Oxford University Press.

Anand, P. and Korotkova, N. (2018). Acquaintance content and obviation. In Sauerland, U. and Solt, S., editors, *Proceedings of Sinn und Bedeutung 22*, pages 55–72.

Anthony, A. (2016). Experience, evaluation and faultless disagreement. *Inquiry: An Interdisciplinary Journal of Philosophy*, 59(6):686–722.

Asudeh, A. and Toivonen, I. (2012). Copy raising and perception. *Natural Language & Linguistic Theory*, 30:321–380.

Asudeh, A. and Toivonen, I. (2017). A modular approach to evidentiality. *Proceedings of the LFG '17 Conference*.

Ayer, A. J. (1936). *Language, Truth, and Logic*. Gollanz, London.

Barker, C. (2002). The dynamics of vagueness. *Linguistics and Philosophy*, 25:1–36.

Barker, C. (2013). Negotiating taste. *Inquiry*, 56:240–257.

Blackburn, S. (1998). *Essays in Quasi-Realism*. Oxford University Press.

Bledin, J. and Srinivas, S. (2019). As ifs. In Espinal, M. T. et al., editors, *Proceedings of Sinn und Bedeutung 23*, volume 1, pages 163–180, Universitat Autònoma de Barcelona, Bellaterra (Cerdanyola del Vallès).

Breckenridge, W. (2018). *Visual Experience: A Semantic Approach*. Oxford University Press.

Brogaard, B. (2013). It's not what it seems: a semantic account of 'seems' and seemings. *Inquiry: An Interdisciplinary Journal of Philosophy*, 56(2–3):210–239.

Brogaard, B. (2014). The phenomenal use of 'look' and perceptual representation. *Philosophy Compass*, 9/7:455–468.

Brogaard, B. (2018). *Seeing and Saying: The Language of Perception and the Representational View of Experience*. Oxford University Press.

Brugman, C. M. and Macaulay, M. (2015). Characterizing evidentiality.

Linguistic Typology, 19(2):201–237.

Bylinina, L. (2017). Judge-dependence in degree constructions. *Journal of Semantics*, 34(2):291–331.

Cappelen, H. and Hawthorne, J. (2009). *Relativism and Monadic Truth*. Oxford University Press.

Carlson, G. N. (1977). *Reference to Kinds in English*. PhD thesis, University of Massachusetts, Amherst.

Carlson, G. N. and Pelletier, F. J., editors (1995). *The Generic Book*. The University of Chicago Press.

Chapman, C., Doran, D., and Schmidtke, D. (2015). The locus of evidentiality in English. Presentation at the annual meeting of the Canadian Linguistics Association, University of Ottawa.

Charlow, N. (2018). Gradable predicates of experience. Unpublished ms.

Chierchia, G. and McConnell-Ginet, S. (1990). *Meaning and Grammar*. MIT Press, Cambridge, MA.

Chisholm, R. (1957). *Perceiving: A Philosophical Study*. Cornell University Press.

Collins, J. (2013). The syntax of personal taste. *Philosophical Perspectives*, 27:51–103.

Dinges, A. (2017). Relativism, disagreement and testimony. *Pacific Philosophical Quarterly*. DOI: 10.1111/papq.12191.

Doran, D. (2015). A semantic analysis of English copy raising constructions. Master's thesis, McMaster University.

Dowell, J. (2011). A flexible contextualist account of epistemic modals. *Philosophers' Imprint*, 11(14).

Egan, A. (2007). Epistemic modals, relativism and assertion. *Philosophical Studies*, 133(1):1–22.

Egan, A. (2010). Disputing about taste. In Feldman, R. and Ted A. W., editors, *Disagreement*, pages 247–286. Oxford University Press.

Egan, A., Hawthorne, J., and Weatherson, B. (2005). Epistemic modals in context. In Preyer, G. and Peter, G., editors, *Contextualism in Philosophy: Knowledge, Meaning and Truth*. Oxford University Press.

Embick, D. (2007). Blocking effects and the analytic/synthetic alternations. *Natural Language & Linguistic Theory*, 25:1–37.

Eriksson, J. and Tiozzo, M. (2016). Matters of ambiguity: faultless disagreement, relativism and realism. *Philosophical Studies*, 173:1517–1536.

Firestone, C. and Scholl, B. (2016). Cognition does not affect perception: Evaluating the evidence for 'top-down' effects. *Behavioral and Brain Sci-*

ences, 39:1–77.

Fleisher, N. (2013). The dynamics of subjectivity. *Proceedings of SALT 23*, pages 276–294.

Franzén, N. (2018). Aesthetic evaluation and first-hand experience. *Australasian Journal of Philosophy*. DOI: 10.1080/00048402.2018.1425729.

Gibbard, A. (1990). *Wise Choices, Apt Feelings*. Oxford University Press.

Gibbard, A. (2003). *Thinking How to Live*. Harvard University Press.

Glanzberg, M. (2007). Context, content, and relativism. *Philosophical Studies*, 136:1–29.

Grice, H. P. (1975). Logic and conversation. In Cole, P. and Morgan, J., editors, *Syntax and Semantics, 3: Speech Acts*. Academic Press, New York.

Harman, G. (1975). Moral relativism defended. *The Philosophical Review*, 84(1):3–22.

Heycock, C. (1994). *Layers of Predication*. Garland, New York.

Hills, A. (2013a). Faultless moral disagreement. *Ratio (new series)*, XXVI:410–427.

Hills, A. (2013b). Moral testimony. *Philosophy Compass*, 8/6:552–559.

Hopkins, R. (2007). What is wrong with moral testimony? *Philosophy and Phenomenological Research*, LXXIV(3):611–634.

Huvenes, T. T. (2014). Disagreement without error. *Erkenntnis*, 79:143–154.

Jackson, F. (1977). *Perception: A Representative Theory*. Cambridge University Press.

Kant, I. (1987/1790). *Critique of Judgment*. Hackett. Trans. Werner S. Pluhar.

Kennedy, C. (2013). Two sources of subjectivity: Qualitative assessment and dimensional uncertainty. *Inquiry*, 56:258–277.

Kennedy, C. and Willer, M. (2016). Subjective attitudes and counterstance contingency. *Proceedings of SALT 26*.

Khoo, J. (2015). Modal disagreements. *Inquiry*, 5:1–24.

Kim, J.-B. (2014). English copy raising constructions: Argument realization and characterization condition. *Linguistics*, 54(1):167–203.

Klempner, E. (2018). *Beauty, Art and Testimony: Subjectivity and Objectivity in Aesthetics*. PhD thesis, UC Berkeley.

Knobe, J. and Yalcin, S. (2014). Epistemic modals and context: Experimental data. *Semantics and Pragmatics*, 7:1–21.

Koev, T. (2019). Strong beliefs, weak commitments. In Espinal, M. T. et al., editors, *Proceedings of Sinn und Bedeutung 23*, volume 2, pages 1–18, Universitat Autònoma de Barcelona, Bellaterra (Cerdanyola del Vallès).

Kölbel, M. (2002). *Truth without Objectivity*. Routledge.

Kölbel, M. (2004). Faultless disagreement. *Proceedings of the Aristotelian Society*, 104(1):53–73.

Korotkova, N. (2016a). Disagreement with evidentials: a call for subjectivity. In Hunter, J., Simons, M., and Stone, M., editors, *JerSem: The 20th Workshop on the Semantics and Pragmatics of Dialogue*, pages 65–75.

Korotkova, N. (2016b). *Heterogeneity and uniformity in the evidential domain*. PhD thesis, UCLA.

Kratzer, A. (1981). The notional category of modality. In Eikmeyer, H.-J. and Rieser, H., editors, *Words, worlds, and contexts: New approaches in word semantics*. Berlin: De Gruyter.

Kratzer, A. (1991). Modality. In von Stechow, A. and Wunderlich, D., editors, *Semantics: An international handbook of contemporary research*. Berlin: De Gruyter.

Landau, I. (2011). Predication vs. aboutness in copy raising. *Natural Language & Linguistic Theory*, 29:779–813.

Lasersohn, P. (1995). Sounds like 'like'. *Linguistic Analysis*, 25:70–77.

Lasersohn, P. (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy*, 28:643–686.

Lasersohn, P. (2016). *Subjectivity and Perspective in Truth-Theoretic Semantics*. Oxford University Press.

Lassiter, D. (2017). *Graded Modality: Qualitative and Quantitative Perspectives*. Oxford University Press.

Lewis, D. (1979). Attitudes de dicto and de se. *The Philosophical Review*, 88(4):513–543.

López de Sa, D. (2015). Expressing disagreement: A presuppositional indexical contextualist relativist account. *Erkenntnis*, 80:153–165.

MacFarlane, J. (2011). Epistemic modals are assessment sensitive. In Weatherson, B. and Egan, A., editors, *Epistemic Modals*. Oxford University Press.

MacFarlane, J. (2014). *Assessment Sensitivity: Relative Truth and its Applications*. Oxford University Press.

MacFarlane, J. (2016). Vagueness as indecision. *Aristotelian Society Supplementary Volume*, 90(1):255–283.

Macpherson, F. (2012). Cognitive penetration of colour experience: Rethinking the issue in light of an indirect mechanism. *Philosophy and Phenomenological Research*, 84(1):24–62.

Martin, M. G. F. (2010). What's in a look? In Nanay, B., editor, *Perceiving*

the World, pages 160–225. Oxford University Press.

McGrath, S. (2009). The puzzle of pure moral deference. *Philosophical Perspectives*, 23:321–344.

McGrath, S. (2011). Skepticism about moral expertise as a puzzle for moral realism. *The Journal of Philosophy*, CVIII(3):111–137.

McNally, L. and Stojanovic, I. (2017). Aesthetic adjectives. In Young, J., editor, *The Semantics of Aesthetic Judgment*, pages 17–37. Oxford University Press.

Moltmann, F. (2010). Relative truth and the first person. *Philosophical Studies*, 150(2):187–220.

Mothersill, M. (1984). *Beauty Restored*. Oxford University Press.

Muñoz, P. (2018). The origin of acquaintance inferences: experiential semantics and direct evidentiality. Unpublished ms.

Muñoz, P. (2019). *On Tongues: The Grammar of Experiential Evaluation*. PhD thesis, University of Chicago.

Ninan, D. (2014). Taste predicates and the acquaintance inference. *Proceedings of SALT*, 24:290–309.

Palmira, M. (2015). The semantic significance of faultless disagreement. *Pacific Philosophical Quarterly*, 96:349–371.

Pearson, H. (2013). A judge-free semantics for predicates of personal taste. *Journal of Semantics*, 30(1):103–154.

Plunkett, D. and Sundell, T. (2013). Disagreement and the semantics of normative and evaluative terms. *Philosophers' Imprint*, 13(23).

Potsdam, E. and Runner, J. (2001). Richard returns: Copy-raising and its implications. In Mary Andronis, Christopher Ball, H. E. and Neuvel, S., editors, *Papers from the 37th regional meeting of the Chicago Linguistic Society*, pages 453–468.

Rett, J. (2014). *The Semantics of Evaluativity*. Oxford University Press.

Rett, J. and Hyams, N. (2014). The acquisition of syntactically encoded evidentiality. *Language Acquisition*, 21(2):173–198.

Richard, M. (2004). Contextualism and relativism. *Philosophical Studies*, 119:215–242.

Rogers, A. (1972). Another look at flip perception verbs. *Papers from the 8th regional meeting of the Chicago Linguistics Society*, pages 303–315. Eds. Paul M. Peranteau, Judith N. Levi, and Gloria C. Phares.

Rudolph, R. E. (2018). Talking about appearances: the roles of evaluation and experience in disagreement. *Philosophical Studies*. DOI: 10.1007/s11098-018-1185-5.

Rudolph, R. E. (2019a). The acquaintance inference with 'seem'-reports. *Proceedings of the 54th Meeting of the Chicago Linguistics Society*. Forthcoming.

Rudolph, R. E. (2019b). A closer look at the perceptual source in copy raising constructions. In Espinal, M. T. et al., editors, *Proceedings of Sinn und Bedeutung 23*, volume 2, pages 287–304, Universitat Autònoma de Barcelona, Bellaterra (Cerdanyola del Vallès).

Sæbø, K. J. (2009). Judgment ascriptions. *Linguistics and Philosophy*, 32:327–352.

Schaffer, J. (2011). Perspective on taste predicates and epistemic modals. In Egan, A. and Weatherson, B., editors, *Epistemic Modality*, pages 179–226. Oxford University Press, Oxford.

Shafer-Landau, R. (2006). Ethics as philosophy: a defense of ethical nonnaturalism. In Horgan, T. and Timmons, M., editors, *Metaethics after Moore*. Oxford University Press.

Silk, A. (2016). *Discourse Contextualism: A Framework for Contextualist Semantics and Pragmatics*. Oxford University Press.

Stephenson, T. (2007). Judge dependence, epistemic modals, and predicates of personal taste. *Linguistics and Philosophy*, 30:487–525.

Stevenson, C. L. (1937). The emotive meaning of ethical terms. *Mind*, 46(181):14–31.

Stojanovic, I. (2007). Talking about taste: disagreement, implicit arguments and relative truth. *Linguistics and Philosophy*, 30:691–706.

Stojanovic, I. (2017a). Context and disagreement. *Cadernos de Estudos Linguísticos*.

Stojanovic, I. (2017b). Disagreement about taste vs. disagreement about moral issues. <hal-01623839>.

Stump, G. (1985). *The Semantic Variability of Absolute Constructions*. Dordrecht: Reidel.

Sundell, T. (2011). Disagreement about taste. *Philosophical Studies*, 155(2):267–288.

Tonhauser, J., Beaver, D., Roberts, C., and Simons, M. (2013). Towards a taxonomy of projective content. *Language*, 89(1):66–109.

von Fintel, K. and Gillies, A. (2010). Must ...stay ...strong! *Natural Language Semantics*, 18:351–383.

von Fintel, K. and Heim, I. (2002). Lecture notes on intensional semantics. ms., Massachusetts Institute of Technology.

Wikipedia (2017). The dress. `https://en.wikipedia.org/wiki/The_`

`dress`. Online; accessed 9-October-2017.

Wikipedia (2019). Yanny or Laurel. `https://en.wikipedia.org/wiki/Yanny_or_Laurel`. Online; accessed 3-July-2019.

Willett, T. (1988). A cross-linguistic survey of grammatical of evidentiality. *Studies in Language*, 12:51–97.

Williamson, T. (1996). Knowing and asserting. *Philosophical Review*, 105(4):489–523.

Williamson, T. (2000). *Knowledge and its Limits*. Oxford University Press, Oxford.

Wollheim, R. (1980). *Art and Its Objects*. Cambridge University Press.

Wyatt, J. (2018). Absolutely tasty: an examination of predicates of personal taste and faultless disagreement. *Inquiry*, 61(3):252–280.

Yalcin, S. (2007). Epistemic modals. *Mind*, 116:983–1026.

Yalcin, S. (2011). Nonfactualism about epistemic modality. In Egan, A. and Weatherson, B., editors, *Epistemic Modality*, pages 295–332. Oxford University Press.

Zakkou, J. (2019a). Denial and retraction: a challenge for theories of taste predicates. *Synthese*, 196:1555–1573.

Zakkou, J. (2019b). Embedded taste predicates. *Inquiry*, 62(6):718–739.

Zeman, D. (2017). Contextualist answers to the challenge from disagreement. *Phenomenology and Mind*, 12:62–73.