A bare treatment of experiential predicates

This chapter offers a preliminary account of experiential predicates, which serves as the basis for the more detailed treatment of experiential semantics generally in Chapter 2. It uses the English adjective *tasty* as its sole exemplar, citing other predicates only where necessary for expository purposes. The diet of experiential expressions is expanded in later chapters, and the reader can confirm that the arguments in this chapter pertain equally to other experiential predicates.

Previous research has nearly unanimously claimed that experiential predicates must make reference to an experiencer at some level of semantic description; disagreement has largely concerned at what level. This chapter examines these claims and rejects them: §1.1 and §1.2 discuss extant views on the role of the experiencer in the semantics of experiential predicates, and §1.3 provides a template for a distinct positive proposal.

§1.1 examines contextualism about experiential predicates, the position that such predicates take an experiencer argument, such that (on composing with this argument) their content at a context of utterance always makes reference to some standard of experience or other. This section argues at length that this position is false.

§1.2 examines relativism about experiential predicates, according to which such predicates, while not composing with an experiencer argument, nonetheless make reference to an experiencer in determining their extension, which is supplied by the value of an intensional parameter. This section demonstrates that removing the experiencer argument resolves the contextualist’s problems.

§1.3 offers the basics of a bare semantics for experiential predicates, according to which they denote properties true or false of individuals at worlds of evaluation *simpliciter*, with no reference to an experiencer. This section shows that such an account can recapitulate the advantages of a relativist treatment in a simpler way, so that the experiencer parameter, while empirically harmless, is superfluous. The bare semantics is then taken for granted in the rest of the work.

1.1 Contextualism: against the experiencer argument

The contextualist holds that experiential predicates are extensionally dyadic: at a world of evaluation, they denote relations between individuals, as in the following standard denotation
(1) \[ [tasty]^w = \lambda x.e. \lambda y.e.tasty''(w)(x)(y) \]

\( x \) is an experiencer, or individual that sets the relevant experiential standard, and \( y \) is a stimulus, or individual that produces experiences. ‘tasty''’ is a metalanguage predicate, to be read as follows: \( tasty''(w)(x)(y) \) iff at \( w \), \( y \) is tasty by the standard of experience set by \( x \) (the two apostrophes signify that the predicate is dyadic relative to worlds).\(^2\)

For \( tasty \), this talk of ‘the experiential standard set by \( x \) at \( w \)’ must track pleasant gustatory experiences in the right way, minimally by determining which individuals are disposed to produce such experiences in \( x \) at \( w \) (2-a). A stronger reading of the metalanguage predicate would instead track not mere dispositions to produce experience, but production of experience \textit{simpliciter} (2-b).

(2) a. \( tasty''(w)(x)(y) \) iff at \( w \), \( y \) is disposed to produce gustatory pleasure in \( x \).

b. \( tasty''(w)(x)(y) \) iff at \( w \), \( y \) produces gustatory pleasure in \( x \).

Experiential predicates alone thus don’t denote properties of individuals at any level of semantic description, and at worlds, there are no experiential properties \textit{simpliciter}, but rather only stimuli’s production of, or disposition to produce, experiences in experiencers.\(^3\)

The contextualist requires that the experiencer argument to \( tasty \) be somehow saturated by an individual. The predominant method of doing this is by taking \( tasty \) to select for an \( e \)-type internal argument, whose overt expression is a (usually) to-headed experiencer PP, as in (3) (cf. Glanzberg 2007: 11-12, fn. 9.; Stephenson 2007a: 519-520; Stojanovic 2007: 701, fn. 15; Sæbø 2009: 337, 339; Schaffer 2011; Pearson 2013; Snyder 2013: 286-289).

(3) Licorice is tasty to Alfonse.

The easiest way to do this (cf. Stephenson 2007a: 500) is to treat the preposition as vacuous (4-a), and so allow its DP complement to saturate the first individual argument of \( tasty \). (4-b) then denotes a property true of those things that produce, or are disposed to produce, 

\(^1\) ‘Individual’ is used here to cover any object traditionally of type \( e \), whether, atomic, plural, or kind. This allows the contextualist flexibility in characterizing experiential standards.

\(^2\) Standards of experience can be modeled in many ways. Taking \( \varsigma \) to be a function from world-individual pairs \( \langle w, x \rangle \) to the standard of experience set by \( x \) at \( w \), one might say that a standard of experience simply is an individual, such that trivially \( \varsigma(w,x) = x \), or that it is an abstract object that models the kinds of experiences that \( x \) is disposed to have at \( w \): e.g., \( \varsigma(w,x) \) might be a function from individuals \( y \) to sets of experiences, such that \( \varsigma(w,x)(y) = \{ z : z \) is an experience that \( y \) is disposed to produce in \( x \) at \( w \} \).

The interpretation of the metalanguage predicate can be rephrased to coincide with any of these options, with the same results: e.g., on the latter way of construing experiential standards, (2-a) could instead read ‘tasty''(w)(x)(y) iff the experience of gustatory pleasure is a member of \( \varsigma(w,x)(y) \).’ The metalanguage predicate could also be recast as type \( \langle s, \langle \sigma, (e, t) \rangle \rangle \), where \( \sigma \) is the type of experiential standards, or \( tasty \) itself could be made to be of extensional type \( \langle s, (e, t) \rangle \), and saturate its first argument with an experiential standard. This won’t make a difference in what follows: the reader can translate where interested.

\(^3\) §1.1.2 and §1.1.5 entertain an alternative view, where the contextualist saturates the experiencer argument to ‘tasty''’ in the predicate itself, so that \( tasty \) denotes a property, but one intrinsically relativized to a standard of experience. A contextualist also might conceivably admit the existence of experiential properties at worlds \textit{simpliciter}, while denying that experiential predicates denote them; as a shorthand I ignore this possibility.
gustatory pleasure in Alfonse (at $w$).

(4)  
   a. $\llbracket to \rrbracket^w = \lambda x_e. x$
   b. $\llbracket tasty \ [to \ Alfonse] \rrbracket^w = \lambda y_e. tasty''(w)(a)(y)$

*Tasty* to *Alfonse* imposes a direct experience constraint on the individual it composes with: (3) implies that Alfonse has tasted licorice. This implication is presuppositional: it can’t be canceled (5), can be challenged by discourse moves that target presuppositions (6), and can project out of classical holes (7), where (7-a) involves non-external and non-metalinguistic negation. (7-b)’s prejacent and (7-d)’s antecedent can also allow for local accommodation of the presupposition, and in (7-c), even if the presupposition doesn’t project, part of what’s asked must be whether Alfonse has tasted licorice.

(5) \footnote{Licorice is tasty to Alfonse, but he hasn’t tasted it.}
(6) A: Licorice is tasty to Alfonse.
   B: Wait a minute – Alfonse hasn’t tasted licorice.
(7)  
   a. Licorice isn’t tasty to Alfonse.
   b. Licorice must be tasty to Alfonse.
   c. Is licorice tasty to Alfonse?
   d. If licorice is tasty to Alfonse, we should get him some.

$\hookrightarrow$ Alfonse has tasted licorice.

One way to account for this is by committing to a modification of the strong interpretation of ‘*tasty”* in (2-b), so that it both enforces that the stimulus has actually produced gustatory pleasure in the experiencer, and allows for presupposition failure when this condition isn’t met.

(8) \footnote{It follows from (8) that if there is no gustatory experience that $y$ has produced in Alfonse at $w$, then the value of ‘*tasty”*(w)(a)(y)” is undefined. Where ‘production of gustatory experience’ is read as production of experience of a certain phenomenological character by contact with the taste receptors, then this requires tasting, and the presupposition is secured.}

$tasty''(w)(x)(y)$ iff

*at $w$, the gustatory experience that $y$ produces in $x$ is an experience of pleasure.*

From (8) it follows that *tasty to Alfonse* denotes a partial function, defined only on individuals that Alfonse has tasted. The domain condition must be lexically stipulated, and vary from predicate to predicate, since different experiential predicates enforce different sorts of direct experience presuppositions: *funny to Alfonse* has no tasting requirement (but does enforce a direct experience presupposition of some sort), while *tasty to Alfonse* has only this requirement.

Either approach gets the right result, but commits the contextualist to a substantive
claim: all relations denoted by experiential predicates enforce direct experience presuppositions. If this is denied, problems arise in capturing the presuppositions; if it’s affirmed, problems arise in contexts in which there are no such presuppositions (cf. § 1.1.2).

The question is then how the experiencer argument is saturated when there is no overt experiencer PP, as in (10).

(10) Licorice is tasty.

The contextualist’s eponymous answer is that its value is supplied by the context: an occurrence of tasty as in (10) has as its literal content at a context tasty to x, the value of ‘x’ somehow contextually determined. Absent an overt argument, experiencer predicates take definite null complements, in Fillmore’s (1986: 96) terminology, or anaphoric/context-dependent implicit arguments, in Condoravdi & Gawron’s (1996: 2-5); cf. Snyder (2013: 286-289).

This argument is ‘context-sensitive’ in the wide sense of Partee (2004 [1989]), and can depend for its value on the context of utterance alone, the preceding discourse, or the local sentence context, yielding indexical readings, anaphoric readings (Snyder 2013: 288-289), and bound-variable readings controlled by a local quantifier (Lasersohn 2005: 681; 2008: 323-326; 2017: 116-118; Cappelen & Hawthorne 2009: 132-134; Schaffer 2011: 192-195; Snyder 2013: 285).

Thus, (11-a) can be read with the implicit experiencer indexically valued as Alfonse, if uttered while watching him eat the licorice, delighted, while (11-b) has a reading on which the implicit experiencer of tasty is anaphoric to Alfonse; readings like these that anchor the predicate to a contextually specified experiencer are collectively called ‘exocentric.’ (11-c) has a covarying reading on which for every person x such that x went to the candy store, there is a snack y such that x got y and y is tasty to x.

(11) a. The licorice is tasty.
   b. Alfonse went to a candy store. The licorice was tasty.
   c. Everyone who went to the candy store got a tasty treat.

These interpretations can be captured if the experiential predicate can also select for an empty DP xϵ, which acts as a variable valued for an experiencer individual. A fourth sort of reading relies, definite description-like, on accommodation based on prior discourse, without a linguistic antecedent: Whenever there’s a trip to the candy store, the licorice is tasty can mean that the licorice is tasty to the ones who go to the store, despite there being no preceding expression referring to these people (as expected, this reading is unavailable for explicit pronominal experiencers: #Whenever there’s a trip to the candy store, the licorice is tasty to them; cf. Partee 2004 [1989]: 270). Implicit donkey experiencers are also possible, as in Everyone who has a child knows which foods are tasty, which on the relevant reading has the experiencer covarying with children of parents.

If the contextualist doesn’t take this route, it’s a non-trivial question how the implicit experiencers are going to work. As Schaffer (2011: 181-191) shows, there is a range of possibilities in logical space, but not all of these are guaranteed to be linguistically plausible. According to the above exposition, the contextualist is committed to experiential adjectives being transitive: giving this up requires another story about how they compose with overt experiencer PPs (cf. § 1.1.2). But if the predicates are transitive with overt experiencers, then to deny the same of them with covert experiencers would be to posit a lexical ambiguity, or to require some mechanism for suppressing their selectional behavior. Of course, the syntactic status of implicit arguments generally is a matter of debate: see Bhatt & Pancheva (2006) for an overview (and
implicit experiencers can then be provided by evaluating denotations relative to a variable assignment \( g \), which maps indices, including the distinguished experiencer index \( \epsilon \), to values of the relevant type (here, type \( e \)).\(^6\)

\[
[x_\epsilon]^{w,g} = g(\epsilon)
\]

The discourse or utterance context then provides a value for this index. A semantic-pragmatic bridge principle can determine the content of assignment-dependent expressions in a context of utterance \( c \) by quantifying over assignments compatible with that context (13-b), as restricted by (13-a), which ensures that the value of \( \epsilon \) is \( \epsilon_c \), the experiencer relevant in \( c \). \( \kappa \) is a variable over semantic contents, viz. objects of type \( (s, \tau) \), where \( \tau \) is an extensional type (so that the semantic contents of sentences relative to contexts are traditional propositions, of type \( (s, t) \)).

\[
\begin{align*}
(13) & \quad \text{a. } g \text{ is compatible with } c \text{ only if } g(\epsilon) = \epsilon_c. \\
& \quad \text{b. } \langle a \rangle^c = \iota \kappa[\forall g : g \text{ is compatible with } c[\kappa = \lambda w. \langle a \rangle^{w,g}]]
\end{align*}
\]

This ensures that unbound occurrences of the implicit experiencer with no discourse antecedent behave indexically. (11-a) on the relevant interpretation is interpreted as in (14-a); its content in a context \( c \) is then as in (14-b). Where \( \epsilon_c \) is Alfonse, the proposition expressed is identical to that expressed by \( \text{the licorice is tasty to Alfonse} \) in \( c \), yielding the right result.

\[
\begin{align*}
(14) & \quad \text{a. } [\text{the licorice is tasty } x_c]^{w,g} = \text{tasty}''(w)(g(\epsilon))(\iota x[\text{licorice}'(w)(x)]) \\
& \quad \text{b. } [\text{the licorice is tasty } x_c]^c = \lambda w_s. \text{tasty}''(w)(\epsilon_c)(\iota x[\text{licorice}'(w)(x)])
\end{align*}
\]

There is then nothing problematic in principle about discourse-anaphoric interpretations, like (11-b). These can be handled so long as (i) the use of a proper name like \( \text{Alfonse} \) introduces a discourse referent, and (ii) contextual parameters can be equated with discourse referents according to pragmatic principles that become preferred in the right discourse structure, such that e.g. \( \epsilon_c = \text{Alfonse} \) following a use of \( \text{Alfonse} \) (see Condoravdi & Gawron 1996: 14, ex. 18c-d for an example of how to implement such principles in a dynamic framework, using locative anaphoric implicit arguments).

Bound readings as in (11-c) are then derived so long as the \( \epsilon \) index can be abstracted over, or quantificational expressions can quantify into open sentences containing it and bind it off. Assuming a quantifying-in procedure in the spirit of Montague (1973), interpreting traces in the standard way (15-a), and treating quantificational DPs as ordinary indexed

\[\text{§5 for a note on ‘evaluative predicates’}, \text{ and Landau (2010b) for the position that implicit arguments are genuinely projected, despite their impoverished syntax}. \text{ What follows assumes for convenience that implicit experiencers are phonologically null DPs selected for in the ordinary way: something similar is taken for granted in early generative treatments, as in Lakoff (1970: 127), which assumes that implicit experiencers are the result of a transformational deletion}. \text{ Epstein (1984) argues for the syntactic reality at LF of these experiencer arguments based on the control of PRO by clause-taking experiential predicates like \text{fun}, and Schaffer (2011: §2.3) and Snyder (2013: 287-288) have revived the claim in the present debate (cf. Lasersohn 2017: 118-119 for a skeptical response). Collins (2013) has argued that experiencer phrases are syntactically adjunctive.}

\[\text{6This notion is adapted from Stojanovic’s (2007: 700) idea of a ‘distinguished judge variable’ } x_T. \text{ An alternative in Stephenson (2007a: 503-505) instead posits a range of silent experiencer proforms acting as individual constants; this won’t work, since a variable is required to capture quantified readings.}\]
universal and existential quantifiers as in (15-b)-(15-c) (where \(a\) is the type of an assignment function, i.e. a function from typed indices to objects in the domain, and intensions are type \(\langle a, \langle s, \tau \rangle \rangle\)), (16-a) can be assigned a structure as in (16-b), which is interpreted as in (17), yielding the desired reading.

\[
\begin{align*}
(15) & \quad \text{a. } [e_i]^{w,g} = g(i) \\
& \quad \text{b. } [\{\text{everyone}\}^{w,g} = \lambda \phi_{a,\text{st}}. \forall y[\text{person}'(w)(y) \rightarrow \phi(g[i \rightarrow y])(w)] \\
& \quad \text{c. } [a_i]^{w,g} = \lambda P_{x,t}. \lambda \phi_{a,\text{st}}. \exists x[P(x) \land \phi(g[i \rightarrow x])(w)]
\end{align*}
\]

\[
\begin{align*}
(16) & \quad \text{a. Everyone got a tasty treat.} \\
& \quad \text{b.}
\end{align*}
\]

\[
\begin{align*}
(17) & \quad \text{a. } [e_\epsilon [\text{got } e_1]]^{w,g} = \text{get''}(w)(g(1))(g(\epsilon)) \\
& \quad \text{b. } [[\text{tasty } x_\epsilon \text{ treat}]^{w,g} = \lambda x_\epsilon. \text{tasty''}(w)(g(\epsilon))(x) \land \text{treat'}(w)(x) \\
& \quad \text{c. } [a_1 [[\text{tasty } x_\epsilon \text{ treat}]]^{w,g} = \lambda \phi_{a,\text{st}}. \exists x[\text{tasty''}(w)(g(\epsilon))(x) \land \text{treat'}(w)(x) \land \phi(g[1 \rightarrow x])(w)] \\
& \quad \text{d. } [a_1 [[\text{tasty } x_\epsilon \text{ treat}]] [e_\epsilon [\text{got } e_1]]]^{w,g} = \exists x[\text{tasty''}(w)(g(\epsilon))(x) \land \text{treat'}(w)(x) \land \text{get''}(w)(x)(g(\epsilon))] \\
& \quad \text{e. } [[\text{everyone}_\epsilon [[a_1 [[\text{tasty } x_\epsilon \text{ treat}]] [e_\epsilon [\text{got } e_1]]]]^{w,g} = \\
& \quad \forall y[\text{person}'(w)(y) \rightarrow \exists x[\text{tasty''}(w)(y)(x) \land \text{treat'}(w)(x) \land \text{get''}(w)(x)(y)]]
\end{align*}
\]

Finally, some bound readings relate the bound individuals not to their own experiential standard, but to a standard determined by some individual to which they bear some contextually salient relation. Thus in a context where parents are buying candy for their kids, (18) has a reading on which the parents buy something tasty not to themselves, but to their children.

\[
\begin{align*}
(18) & \quad \text{Every parent got a tasty treat.}
\end{align*}
\]

These can be captured by allowing \(x_\epsilon\) to denote not the value that the assignment gives to \(\epsilon\), but the result of applying some function to this. Let the assignment also determine such a function, so that \(g(f_\epsilon)\) is a function of type \(\langle s, \langle e, \tau \rangle \rangle\), which maps worlds \(w\) to individuals \(x\) to individuals \(y\) such that \(y\) bears a relation governing experiencers to \(x\) at \(w\). The context can then determine the relevant relation as in (19-a), where \(f_{c,\epsilon}\) is the contextually relevant function in \(c\) governing experiencers, and the denotation for \(x_\epsilon\) can be updated as in (19-c), which is an abbreviation per the definition in (19-b).

\[
\begin{align*}
(19) & \quad \text{a. } g \text{ is compatible with } c \text{ only if } g(f_\epsilon) = f_{c,\epsilon}. \\
& \quad \text{b. } g_{f,w}(\epsilon) := g(f_\epsilon)(w)(g(\epsilon)) \\
& \quad \text{c. } [x_\epsilon]^{w,g} = g_{f,w}(\epsilon)
\end{align*}
\]

In the relevant context \(c\), (18) is derived because \(f_{c,\epsilon}\) is that function which maps worlds \(w\) to individuals \(x\) to the (relevant) child(ren) of \(x\) at \(w\). Composing analogously to (17) then...
gets the right result relative to this context, and the content of this expression relative to \(c\) is as in (20), where ‘\(\text{child}_c(w)(y)\)’ denotes the contextually relevant child(ren) of \(y\) at \(w\) in \(c\).

\[
(20) \quad \langle \text{every}_\epsilon \text{ parent}_1 \text{ tasty}_1 \text{ treat}_1 \text{ got}_1 \rangle^c = \\
\lambda w, \forall y[\text{parent}'(w)(y) \to \exists x[\text{tasty}''(w)(\text{child}_c(w)(y))(x) \\
\land \text{treat}'(w)(x) \land \text{get}''(w)(x)(y)]]
\]

The original bound reading, on which people get treats tasty to themselves, then arises when \(f_{c,\epsilon}\) is trivial, i.e. denotes the function from worlds to the identity function on individuals. This is the normal case, and in the following, the simpler denotation for \(x_\epsilon\) in (12) is assumed where no special non-identity function is being invoked.

Experiential predicates are unlike some lexical items that take anaphoric implicit arguments, in that they can appear freely with no overt PP even in contexts that provide no antecedent of any kind to which the argument can be anaphoric: (10), for instance, is felicitous out of the blue, with no experiencer made previously salient, no discourse antecedent, no possibility of accommodation, and no local controlling quantifier. In such cases, uses of experiential predicates tend to have to do with the speaker’s own experiential standard. In this way they pattern like \(\text{local}\), whose location argument defaults to the location of the speaker absent any antecedent.

This is intelligible if, as Condoravdi & Gawron (1996: 20) claim, each context determines automatically values for a small range of parameters inherently tied to the concrete circumstances surrounding speech acts: where values of implicit arguments can in principle adopt these values, they will do so absent an antecedent (and will be infelicitous if they cannot). Thus the location of the speech act provides a suitable sort of argument for \(\text{local}\), and since sentient individuals are a suitable sort of argument for experiential predicates, it can follow that the value of \(\epsilon_c\) defaults to the speaker of the context.

The contextualist can thus round out the semantic-pragmatic picture with a constraint like the following, where \(s_c\) is the speaker in \(c\) (or that group, trivially including the speaker, whose experiences are similar to the speaker’s in the contextually relevant way).

\[
(21) \quad \text{If there is no salient, antecedent, or accommodable experiencer in } c, \text{ then } \epsilon_c = s_c.
\]

§1.1.5 shows that this principle is problematic; but with it the contextualist has a coherent picture of a range of uses of experiential predicates.

The following argues that contextualism is fundamentally flawed, and ought to be abandoned. §§1.1.1-1.1.4 show that experiential predicates don’t behave the way that the contextualist predicts in a huge array of embedded contexts: §1.1.1 deals with subjective attitude verbs; §1.1.2 with a wide range of intensional contexts; §1.1.3 with factive verbs, recapitulating and expanding on observations by Lasersohn (2009); and §1.1.4, highly indebted to Cappelen & Hawthorne (2009), with reports of agreement and disagreement. §1.1.5, highly indebted to Ninan (2014), addresses the pragmatics of using experiential predicates to assert, and argues that a contextualist semantics fails to account for the range of commitments these predicates involve with regard to direct experience: in particular, it doesn’t distinguish between direct experience presuppositions and so-called ‘acquaintance inferences.’

The data point to a distinction between unmodified uses of experiential predicates, which make no reference in their content to a specific experiencer, and modified uses that do involve
such reference. The contextualist can account only for the latter, and so the view is too semantically impoverished to cover the range of uses that these predicates have.

1.1.1 Argument I: subjective attitudes

A contextualist semantics for experiential predicates encounters problems with treating the interpretation of subjective attitude verbs. This section demonstrates this with two English examples, *find* and *consider*.

*Find* is a verb that embeds (preferably adjectival) small clauses, and places certain restrictions on what can appear in the predicative position of these clauses. The nature of these restrictions is a matter of debate (cf. Stephenson 2007b: 59-62; Sæbø 2009; Bouchard 2012: ch. 3; Kennedy 2013; Hirvonen 2014: ch. 4; Kennedy & Willer 2016; Vardomskaya 2018: ch. 4), but for present purposes only the gross difference in (22) is relevant: *find* felicitously embeds experiential predicates (22-a), but not predicates that are non-experiential and in no obvious way ‘evaluative’ (22-b).

(22) a. Alfonse finds licorice tasty.
   b. #Alfonse finds licorice vegetarian.

What is unexpected on a contextualist semantics is that experiential predicates with overt experiencer PPs pattern like *vegetarian*, and unlike experiential predicates with no overt PP.

(23) a. #Alfonse finds licorice tasty to Bethany.
   b. #Alfonse finds licorice tasty to himself.

Since the contextualist takes occurrences of experiential predicates with overt experiencer PPs to be identical in content at a context to occurrences of those same predicates without these overt PPs (where the implicit experiencer’s value is the same as that of the preposition’s complement), it’s not clear how this difference arises: where *find* enforces semantic restrictions on predicates that it embeds, it treats experiential predicates as semantically distinct depending on whether or not an overt experiencer PP is present, against the contextualist’s prediction.⁷

The problem can’t be that *find* semantically requires a (*de re*) self-directed attitude, or that the subject of the verb somehow controls the experiencer argument to the predicate: (23-b) remains unacceptable, even though the subject and experiencer co-refer.⁸ The

⁷ Might there instead be a syntactic, rather than semantic, reason for *find*’s embedding restrictions? It’s hard to see how: since in (22-a) and (23) the predicate itself is the same, and heads the small clause, the verb’s selectional restrictions are unlikely to be sensitive to this distinction. What would be required is that (i) overt experiencer PPs are syntactically distinct from their covert counterparts; and (ii) the syntactic behavior of the verb is sensitive to this distinction regarding what the predicate that it embeds selects for (perhaps preventing embedding of clauses whose predicative component has a complement). Even if such a syntactic restriction can be formulated, the restrictive behavior of *find* appears not to be syntactically driven in that it cross-cuts the class of predicates without (overt) complements anyway, as in the distinction between *tasty* and *vegetarian*: plausibly, this behavior is driven by the lexical semantics of each adjective.

⁸ The possibility that the verb requires a *de se* self-directed attitude, possibly contributed by a null proform that differs in semantic function from overt pronouns that enforce *de re* readings, is tempting here. But if such *de se* readings are in general allowed with experiential predicates, contextualism effectively collapses into relativism: cf. fn. 32, and the comments on *de se* attitudes in §1.2.1. See also Stephenson (2007a) for
contextualist thus looks to lack an explanation for find’s embedding behavior.

Sæbø (2009: 336-337) offers a treatment of find that attempts to explain these restrictions in a way compatible with a contextualist semantics, according to which the verb is semantically vacuous, denoting the identity function on properties of experiencers, as in (24).\footnote{The denotation in (24) may not be sufficient to capture find’s restrictions on the embedding of predicates, since the type \( \langle e,t \rangle \) isn’t fine-grained enough to distinguish properties of experiencers specifically from properties of individuals generally.} The subject of the attitude then saturates the experiencer argument of the experiential predicate, so that (25-a) is given a structure as in (25-b), and interpreted as in (26). This ensures that find only selects for clauses denoting properties of experiencers, which can only occur with experiential predicates.\footnote{(25-a) gives rise to a direct experience presupposition, much in the way that Licorice is tasty to Alfonse does. On this account, this is taken care of automatically, so long as one of the two moves securing these presuppositions for the contextualist mentioned in §1.1 is adopted, since Alfonse performs the exact same function as the subject of find that it performs as part of the internal argument to tasty. Sæbø’s own account is broader than its exposition here recognizes: he wants an explanation for the embedding of ‘subjective’ predicates generally, which may be a broader class than that of experiential predicates.}

\begin{equation}
\text{find}^{w,g} = \lambda P_{(e,t)} P
\end{equation}

\begin{align*}
(25) & \\
\text{a. } & \text{Alfonse finds licorice tasty.} \\
\text{b. } & \\
\begin{tikzpicture}
\node (Alfonse) at (0,0) {Alfonse};
\node (find) at (1,0) {finds};
\node (licorice) at (2,0) {licorice};
\node (tasty) at (3,0) {tasty};
\draw (Alfonse) -- (find);
\draw (find) -- (licorice);
\draw (find) -- (tasty);
\end{tikzpicture}
\end{align*}

\begin{align*}
(26) & \\
\text{a. } & \text{[tasty]}^{w,g} = \lambda x_e.\lambda y_e.\text{tasty}''(w)(y)(x) \\
\text{b. } & \text{[licorice tasty]}^{w,g} = \lambda y_e.\text{tasty}''(w)(y)(l) \\
\text{c. } & \text{[finds [licorice tasty]}^{w,g} = \lambda y_e.\text{tasty}''(w)(y)(l) \\
\text{d. } & \text{[Alfonse [finds [licorice tasty]}^{w,g} = \text{tasty}''(w)(a)(l)
\end{align*}

This approach entails that the denotation of tasty as it occurs in (25-b) isn’t the standard contextualist one in (1): it composes with the stimulus prior to the experiencer, as in (26-a) (where ‘tasty’ is to be read as before).

It follows that this occurrence of tasty can’t compose with an internal experiencer argument (whatever this argument’s syntactic status), for two reasons. First, the composition of find-constructions would fail due to type-mismatch, as in (27). Second, this would force tasty’s denotation to compose with the experiencer first, getting the wrong interpretation in unembedded uses, as in (28-a), which is true just in case Alfonse is tasty to licorice (28-b).

\footnote{A relativist account that makes a similar move, using the null proform ‘PROJ.’}
Sæbø’s account thus faces a dilemma in trying to treat both (25-a) and (28-a): either tasty is semantically uniform, and always composes with a stimulus prior to an experiencer, or it is ambiguous, having one denotation (for find-reports) with no internal experiencer argument, and another denotation (for elsewhere) that does. The former option leads to a constituent structure for (28-a) as in (29).

(29)

This makes two unwelcome predictions: that tasty to Alfonse is not a constituent, and has no denotation assigned to it, and that the predicative copula doesn’t compose with a constituent of extensional type \( \langle e, t \rangle \).\(^{11}\)

The latter option effectively amounts to positing a special lexical item for each experiential predicate whose sole purpose is to compose with find. Even if two separate lexical entries e.g. for tasty are posited, one that composes with an experiencer first, and one that composes with a stimulus first, some restriction has to be enforced for the stimulus-first entry only to appear beneath find as desired. This move effectively abandons a compositional account of experiential predicates in these attitude constructions, and commits to the semantics of the predicate differing depending on the environment in which it’s embedded.\(^{12}\)

Perhaps a proposal in Sæbø’s spirit can circumvent these problems with minor modifications. (25-a) can be given a structure as in (30), consistent with the semantics given in §1.1, such that tasty takes a covert experiencer argument whose value is determined by an assignment as usual. The denotation of find can then be as in (31-a): it serves as an intensional operator that shifts the assignment relative to which the clause it embeds is evaluated, mapping the distinguished experiencer index to the attitude holder. The resulting interpretation is as in (31-b): this is the same as the value in (26-d).

\(^{11}\)Taking tasty to Alfonse not to be a constituent will undoubtedly cause numerous problems, but to name just one, it makes it mysterious how its use as a restrictive nominal modifier, as in the licorice tasty to Alfonse, is to be composed.

\(^{12}\)Sæbø (2009: 339, exx. 25a-b) effectively commits to the ambiguity strategy, though for slightly different reasons, positing one entry for each experiential predicate that composes with a stimulus and then an experiencer, and another that has the experiencer argument saturated ‘a priori’ in the predicate itself, and composes only with a stimulus.
The infelicity of *find* with non-experiential, non-evaluative predicates, and with predicates occurring with overt experiencer PPs, would then result from the fact that neither of these contain \( x_\epsilon \), making the attitude vacuous, there being no value of \( \epsilon \) to non-trivially shift (cf. Katzir & Singh 2013, esp. ex. 27 regarding bans on semantically vacuous operators).

But this ultimately doesn’t work either: its explanation for the felicity of *find* relies on the presence of a covert experiencer, tying the occurrence of *find* solely to experiential predicates, while the verb has a much wider application than this, and occurs with predicates that have no plausible such covert value to shift (cf. §[§]). The contextualist is thus left without a way to account for *find*’s behavior.

*Consider* embeds a small clause, and enforces a certain special doxastic relation between an agent and the proposition denoted by this clause: very roughly, it requires that the agent have evaluative, as opposed to merely descriptive, beliefs that verify the proposition (cf. Lasersohn 2009: 365-367; Kennedy 2013: 265-266; Kennedy & Willer 2016).

For predicates that are intuitively evaluative to begin with, like *tasty*, the semantic effect of *consider* is often difficult to distinguish from that of ordinary doxastic verbs like *think* (32). Where a predicate is intuitively non-evaluative, embedding beneath *consider* is felicitous, but enforces a distinct sort of belief from *think*: (33-b) may report a factual belief that Alfonse has about the material makeup of the table, while (33-a) must report some sort of evaluative belief regarding that makeup (e.g. that Alfonse takes its material to count as wood in a case where this is disputable). In cases where it’s difficult to determine what sort evaluative belief could possibly be held toward a predicate’s application, embedding this predicate beneath *consider* is odd (34) (cf. Lasersohn 2009: 366, ex. 9b).\(^{13}\)

\(^{13}\)Some interpretation could be coerced to repair (34): say, that Bethany is just a quarter-inch shy of six feet tall, and Alfonse is willing to take her to be six feet tall for some intents and purposes. Thus embedding the predicate beneath *consider* is felicitous precisely to the extent that such an evaluative construal of the belief can be accommodated (cf. Vardomskaya 2018: §4.7 for complications with *consider*).
(35)  
a. Alfonse considers licorice tasty.
b. Alfonse considers licorice tasty to Bethany.
c. Alfonse considers licorice tasty to himself.

The most salient reading of (35-a) reports Alfonse’s opinion regarding the taste of licorice. (35-b) and (35-c) can’t be interpreted in this way: to the extent that they have interpretations, they must mean that Alfonse has an evaluative belief regarding whether, given Bethany’s or his own experiential reactions to licorice, licorice counts as tasty to the relevant experiencer by those lights (e.g. if Alfonse’s opinion regards how tasty licorice must be to the experiencer to count as tasty to them, or what experiential reactions should count as relevant for tasty; cf. ibid., fn. 4).

In other words, there is a reading of (35-a) that is not equivalent to any reading of a sentence of the form Alfonse considers licorice tasty to x, for any x (not even, as (35-c) shows, where x is Alfonse himself). But the contextualist wrongly predicts that this latter interpretation is how (35-a) ought to be read, for some value x of the implicit experiencer. Insofar as consider differs from think depending on the ‘evaluativity’ of the predicate it embeds, it treats experiential predicates without overt experiencer PPs as evaluative, but not those with overt PPs (which therefore require a special evaluative reading of the belief that think doesn’t track, as with vegetarian). Consider-reports thus do not mean what a contextualist semantics predicts that they do.

1.1.2 Argument II: direct experience presuppositions

§1.1 showed that the contextualist can capture direct experience presuppositions like that in (36) by interpreting the metalanguage predicate ‘tasty’ so as to make reference to the gustatory experience that the stimulus produces in the experiencer (37-a) (repeated from (8)), or by imposing a domain restriction on the predicate itself (37-b) (repeated from (9)).

(36)  
Licorice is tasty to Alfonse.
\[ \leftrightarrow \text{Alfonse has tasted licorice.} \]

(37)  
a. \( \text{tasty}''(w)(x)(y) \) iff the gustatory experience that y produces in x at w is an experience of pleasure.
b. \( \text{tasty}''(w) = \lambda x_e. \lambda y_e : y \text{ has tasted } x \text{ in } w \cdot \text{tasty}''(w)(x)(y) \)

Recall that the contextualist machinery as it stands commits to the claim that all uses of an experiential predicate to relate experiencers and stimuli enforce such presuppositions. This is a problem, since in many intensional contexts these presuppositions don’t arise where expected if this were the case.

In the prejacent of epistemic necessity modals (38-a), in the antecedents of conditionals (38-b), and in questions, both direct (38-c) and indirect (38-d), the direct experience presupposition survives when the experiential predicate is accompanied by an overt experiencer PP.

(38)  
a. The licorice must be tasty to Alfonse.
\[ \leftrightarrow_{\text{acc}} \text{It must be that: Alfonse has tasted the licorice, and likes its taste.} \]
b. If the licorice is tasty to Alfonse, he should buy some.
   \[\leftrightarrow_{acc}\] If Alfonse has tasted the licorice and likes its taste, he should buy some.

c. Is the licorice tasty to Alfonse?
   \[\leftrightarrow_{acc}\] Is it the case that: Alfonse has tasted the licorice and likes its taste?

d. I wonder whether the licorice is tasty to Alfonse.
   \[\leftrightarrow_{acc}\] The speaker wonders whether: Alfonse has tasted the licorice, and likes its taste.
   \[\Rightarrow\] Alfonse has tasted the licorice.

The hooked arrow indicates the presupposition, identical to that in (36), that projects in each example when it isn’t locally accommodated in the relevant intensional context. For each of (38-a)-(38-d), there is further a paraphrase, indicated by ‘\[\leftrightarrow_{acc}\],’ that arises when the presupposition is locally accommodated. In these cases, the presupposition must be satisfied relative to the shifted point of evaluation: for (38-a), in those worlds compatible with some base of information, etc.

The same effect occurs beneath predictive operators (39-a) and in belief reports (39-b), where local accommodation of the presupposition is obligatory.

(39)  
   a. The licorice will be tasty to Alfonse.
      \[\leftrightarrow_{acc}\] It will be that: Alfonse has tasted the licorice, and likes its taste.
   b. Alfonse believes that the licorice is tasty to Bethany.
      \[\leftrightarrow_{acc}\] Alfonse believes that: Bethany has tasted the licorice, and likes its taste.

But when experiential predicates lack overt experiencer PPs, the same isn’t true, and there are readings for counterparts to each sentence in (38)-(39) with no direct experience presupposition, locally accommodated or otherwise.

(40)  
   a. The licorice must be tasty.
   b. If the licorice is tasty, he should buy some.
   c. Is the licorice tasty?
   d. I wonder whether the licorice is tasty.

(41)  
   a. The licorice will be tasty.
   b. Alfonse believes that the licorice is tasty.

All of (40-a)-(40-d) can be said felicitously with respect to a newly made batch (or kind) of candy that it’s mutually known no one has ever tasted, and where what must be, what is questioned, etc. is not that or whether anyone has ever tasted it.\(^\text{14}\) If (41-a) is uttered while the licorice is being made, it can be felicitously followed with *It’s too bad no one will ever taste it* (cf. Klecha 2014: 451): compare #$The licorice will be tasty to Alfonse; it’s too bad$

\(^{14}\)A direct question like (40-c) sometimes presupposes that the addressee has tasted the licorice: cf. Lasersohn (2005: 673-674). This is because when ‘asking is an invitation to assert’ (ibid.), assertions of expected answers to the question trigger acquaintance inferences (see §1.1.5), and the onus on the addressee to have tasted the licorice arises. This parallels ‘interrogative flip’ in languages with grammaticized direct evidentiality (cf. Murray 2017: §2.3; Aikhenvald 2004: 245-248), but unlike in these languages, the lack of grammatical encoding means the effect is voided in contexts where no answer is expected (even when the question is not used rhetorically).
no one will ever taste it. Alfonse’s belief as reported in (41-b) can be formed with respect to that same batch, even where Alfonse knows it to be untasted.

But the contextualist semantics requires in each of (40-a)-(41-b) that tasty have its experiencer argument saturated implicitly; since the semantic process by which this happens is identical to the one that saturates the argument overtly, the same direct experience presuppositions are predicted to arise with respect to the contextually relevant experiencers. Thus no implicit value for $x_e$ yields the right results, and the contextualist semantics makes the wrong predictions for all of these constructions.

The contextualist thus needs a way to distinguish between those cases in which direct experience presuppositions do and don’t arise. One possibility is to enforce the presuppositions via the overt experiencer PPs, and not via implicitly supplied experiencers: this may account for the distinction between (38)-(39) and (40)-(41). Suppose that ‘tasty’ retains a merely dispositional interpretation (42-a) (repeated from (2-a)), and the preposition enforces a domain restriction requiring direct experience (42-b).

$$\text{tasty}''(w)(x)(y) \text{ iff at } w, y \text{ is disposed to produce gustatory pleasure in } x$$  
$$\text{[to]}^{w,g} = \lambda x_e : x \text{ has direct experience of the relevant kind at } w.x$$

This won’t work: even if a notion of ‘direct experience of the relevant kind’ can be articulated (perhaps relative to a context), due to the locality of composition, the experiencer PP is unable to enforce (i) what the experiencer must have direct experience of, since the PP argument has no access to the stimulus, and (ii) what sort of direct experience the experiencer must have, since it has no access to the predicate.

The licorice is tasty to Alfonse enforces grammatically, and not merely contextually, that Alfonse has experience specifically of the licorice (due to the licorice), and that this experience is specifically gustatory (due to tasty – again compare funny, which has no tasting requirement). An entry like (42-b) is thus unable to provide a coherent method of composing direct experience presuppositions.

This might be remedied if the contextualist takes overt experiencer PPs to be modifiers of, rather than arguments to, the predicate. This requires that the experiencer argument of ‘tasty’ be saturated in the lexical semantics of the predicate itself (43-a), and that the experiencer PP be an intensional shifter of this standard (43-b), where $g[\epsilon \to x]$ is that assignment just like $g$ except that $g[\epsilon \to x](\epsilon) = x$.15 tasty to Alfonse is then as in (43-c), supposing that ‘direct experience of the kind relevant’ to the intension of tasty is gustatory experience.

$$\text{[tasty]}^{w,g} = \lambda x_e . \text{tasty}''(w)(g(\epsilon))(x)$$  
$$\text{[to]}^{w,g} = \lambda x_e . \lambda P_{a,(s,et)} . \lambda y_e : x \text{ has direct experience of } y \text{ of the kind relevant to } P \text{ in } w.$$  
$$P(g[\epsilon \to x])(w)(y)$$  
$$\text{[tasty [to Alfonse]]}^{w,g} = \lambda y_e : a \text{ has tasted } y \text{ in } w . \text{tasty}''(w)(a)(y)$$

This analysis allows the direct experience presupposition to compose, because a modifier

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15This echoes Kölbl’s (2009: 394) proposal that the contextualist might treat such phrases as monstrous operators. Here there are no context shifts, only assignment shifts, as with traditional predicate abstraction or quantifiers, sidestepping objections to monsters.
to the predicate can ‘see’ both the stimulus ($y$) and the predicate ($P$) to enforce the appropriate conditions on them. Retaining the dispositional interpretation of ‘tasty’ from (42-a), it follows that where there is no overt experiencer PP, there is no direct experience presupposition, only an asserted dispositional requirement, as desired.\footnote{It seems no contextualist has explicitly advocated this modifier view. Glanzberg (2007: 13, ex. 15a) has a denotation similar to (43-a), and Sæbø (2009: 331) takes him at his word, but Glanzberg (2007: 11-12, fn. 9) makes clear this is not his preferred position. Sæbø (2009: 337, 339) posits that the experiencer must sometimes be saturated ‘a priori’ and have no syntactic reality, suggesting a similar analysis, but he does this only to patch a technical problem with his analysis of the verb find, which was rejected in §1.1.1.}

This analysis doesn’t get the right results, since it predicts that the distinction between experiential predicates enforcing and not enforcing direct experience presuppositions patterns exactly with whether they occur with overt experiencer PPs or not. But this isn’t so: in exocentric uses of experiential predicates (cf. §1.1), the presupposition persists in the absence of any overt PP. Thus if (44) (repeated from (11-a)) is uttered when picking out a gift to get for Alfonse from the candy shop, it has a reading that presupposes that Alfonse has tasted the licorice.\footnote{(44) can be uttered, and sincerely agreed to by all the interlocutors that are gift-shopping, even if none of them like the licorice themselves, but are only assessing based on their knowledge of Alfonse’s tastes. Thus it’s to be read as anchored to Alfonse specifically, and not as a general recommendation to get the licorice because, since it’s tasty \textit{simpliciter} (or to the interlocutors), Alfonse is likely to enjoy it too. If getting this reading is difficult, suppose that before (44) is uttered, another of the interlocutors asks, \textit{What does Alfonse like?}, with (44) being a direct response to the question. These exocentric readings are brought out more clearly in ‘cat food’ examples, where the interlocutors are aren’t likely candidates for the relevant experiencer, but some distinct individual or group is: cf. Stephenson (2007a: 499, 504).}

\begin{equation}
\begin{aligned}
\text{(44)} & \quad \text{The licorice is tasty.} \\
& \quad \text{\textit{→ Alfonse has tasted the licorice.}}
\end{aligned}
\end{equation}

The reader can confirm that this presupposition projects or is locally accommodated in all the constructions described above, if the relevant context is held fixed.

Perhaps the contextualist can appeal to another silent shifter of the experiencer, that behaves like an experiencer PP but is covert, and is inserted into the structure in exocentric contexts to guarantee the direct experience presupposition. This can be done by reimagining $x_\epsilon$ as a modifier, as follows.

\begin{equation}
\begin{aligned}
\text{(45) a. } & \quad \llbracket x_\epsilon \rrbracket^{w,g} = \lambda P_{\epsilon_\alpha(s,e)} \\
& \quad \lambda y_\epsilon : g(\epsilon) \text{ has direct experience of } y \text{ of the kind relevant to } P \text{ in } w.P(g)(w)(y) \\
\text{b. } & \quad \llbracket \text{tasty } x_\epsilon \rrbracket^{w,g} = \lambda y_\epsilon : g(\epsilon) \text{ has tasted } y \text{ in } w.\text{tasty}''(w)(g(\epsilon))(y)
\end{aligned}
\end{equation}

But this also fails: it predicts that the silent modifier can appear or not, and so that regardless of the value of $g(\epsilon)$, the direct experience presupposition ought to be able to be enforced or not. This isn’t how it works: where the contextually anchored experiencer is e.g. Alfonse, the direct experience presupposition is obligatory.\footnote{There are two moves a contextualist might try to make here. The first is to recast (45-a), so that it does not merely enforce the direct experience presupposition, but also shifts the value of the variable to that of yet another index (say $\epsilon'$): this would effectively require two contextually relevant experiencers – one intrinsic to the predicate, and one intrinsic to the exocentric modifier – and perhaps only the latter might be able to be valued for individuals non-identical the speaker. This would require tying $\epsilon_\epsilon$, the ‘non-exocentric’ experiencer, unacceptably closely to the speaker, causing problems with capturing conversational}
The problem that a contextualist semantics faces is that the data show two kinds of occurrences of experiential predicates: first, there are ‘modified’ occurrences, which appear either in an exocentric context or alongside an overt experiencer PP, and which simultaneously introduce an experiencer into their content and enforce a direct experience presupposition; second, there are ‘unmodified’ occurrences, which do neither. The contextualist, requiring that the experiencer always be present in the content, is unable to capture this pattern.

1.1.3 Argument III: factives

Lasersohn (2009: 369-372; 2017: 158-161) presents a criticism of contextualist semantics on the basis of the behavior of factive attitude reports; this section briefly expands on it.

Factive verbs like realize unproblematically embed clauses that look to predicate experiential properties of individuals, as in (46-a), and to presuppose the truth of their complements in an ordinary way: compare (46-a) to (46-b).

(46) a. Alfonse realizes that licorice is tasty.
   \[ \text{⇒} \text{Licorice is tasty.} \]
   b. Alfonse realizes that licorice is vegetarian.
   \[ \text{⇒} \text{Licorice is vegetarian.} \]

There are three commitments to keep track of in considering an utterance of (46-a): those on the part of the speaker, the addressee, and the subject of the attitude.

First, in uttering (46-a), the speaker commits to the truth of the presupposed proposition, and ergo for the assertion to be sincere and felicitous, must take this proposition to be true for conversational purposes. Second, the addressee becomes committed to the presupposed proposition if there is uptake on the illocutionary force of the assertion. Finally, the lexical entry for realize enforces commitment on the part of Alfonse, the attitude’s subject: Alfonse can’t realize that licorice is tasty without believing this.

These three commitments can be enforced by a denotation like (47-b), where belief is characterized by doxastic alternatives defined as usual (47-a).

(47) a. \( \text{Dox}_{w,x} := \{ w' : w' \text{ is compatible with } x\text{’s beliefs in } w \} \)
   b. \( \text{[realize]}^{w,g} = \lambda \phi_{a,(s,t)} : \phi(g)(w).\lambda x.e.\forall w' \in \text{Dox}_{w,x}[\phi(g)(w')] \)

(47-b) composes with a proposition and an individual (agent), and commits the former to belief in the latter. The domain condition on the first argument enforces the presupposition that the proposition denoted by its complement is true (at the assignment and world of evaluation).

disagreement with experiential predicates (cf. §1.1.5). The second is to plead that \( x_e \) must occur in certain contexts – say, when \( e_c \) is non-identical to the speaker, which is to demand the insertion of a lexical item depending on contextual parameters.

19This entry for realize is incomplete, since it only requires belief, presupposed to be true, of the attitude’s subject. Plausibly realize also has an epistemic component, like know, which requires that the subject be acquainted with the truth of what’s believed in the right way (cf. MacFarlane 2014: 159-160). The domain restriction also only forces adoption of the presupposition within the local intensional context, which is enough for present purposes: it doesn’t predict the possibility of full projection in e.g. Alfonse might realize that licorice is tasty, but only the local accommodation reading.
Suppose that (46-a) is uttered in a situation in which both the speaker and Alfonse like the taste of licorice, and both the speaker and addressee know this. Further, Alfonse mistakenly believes that the speaker is repulsed by the taste of licorice. In such a situation, (46-a) is felicitous, and if the addressee also likes the taste of licorice, the speaker and addressee can competently agree to it. Further, on its being uttered and accepted into the common ground, the speaker, the addressee, and Alfonse, in virtue of being committed to the embedded proposition, typically become committed to liking (or being disposed to like) the taste of licorice.

The question is then: which proposition is embedded beneath realize, and so presupposed by (46-a), in this context of utterance? The obvious answer, viz. the proposition that licorice is tasty (simpliciter), is unavailable to the contextualist, since there is no such proposition expressible by the complement clause. Since there is no overt experiencer PP, there must be a covert experiencer to saturate tasty’s first argument: so the proposition is that licorice is tasty to $\epsilon_c$, for some value of $\epsilon_c$. But apparently no candidate value can predict the commitments of both the speaker and Alfonse. There are four options:

1. $\epsilon_c$ is some group containing Alfonse but not the speaker (possibly just Alfonse himself).
2. $\epsilon_c$ is some group containing the speaker, but not Alfonse (possibly just the speaker him/herself).
3. $\epsilon_c$ is some group containing both Alfonse and the speaker (possibly just Alfonse and the speaker themselves).
4. $\epsilon_c$ is some group containing neither Alfonse nor the speaker.

None of these get the right result: [1] and [4] fail to commit the speaker to liking the taste of licorice, [2] and [4] fail to commit Alfonse to liking the taste of licorice, and [3] commits Alfonse to thinking that the speaker likes the taste of licorice, contrary to the example.

MacFarlane (2014: 159) suggests that option [3] can be made to work, if the commitment that the speaker and attitude holder share is to the proposition that licorice is tasty to those with tastes relevantly similar to Alfonse: Alfonse can believe this de dicto, and trivially will so long as he believes de re of himself that he likes licorice; and the speaker, in recognizing that both she and Alfonse like licorice, is committed to this belief as well.

To implement this, $x_\epsilon$ (the covert complement to tasty) must not world-invariantly denote an individual. This would result in a de re reading to the effect that Alfonse believes of the group that shares his tastes that licorice is tasty by its standards: but he has no such belief, since this group includes the speaker, and per the example he believes de re of the speaker (incorrectly) that she doesn’t like the taste of licorice. $x_\epsilon$ must therefore have a world-relative denotation capable of scoping beneath realize, so that Alfonse can have a merely de dicto belief about the group that shares his tastes.

This can be accomplished via the machinery introduced in §1.1, which effectively maps the value of $\epsilon_c$ in $c$ to some individual standing in a relevant relation to it, as in (48-a) (repeated from (19-c)): tasty in (46-a) can then take $x_\epsilon$ as its complement, and at a context in which $\epsilon_c$ is Alfonse, and $f_{c,\epsilon}$ is that function that maps worlds $w$ to individuals $x$ to the
largest group that shares $x$’s tastes at $w$ in the contextually relevant way, the right result is achieved (where $\text{MAX}_x[\phi]$ is the maximal, possibly plural or kind, individual such that $\phi$ is true on an assignment of that individual to $x$).

\[(48)\]

a. $\llbracket x \rrbracket^{w,g} = g_{f,w}(\epsilon)$

b. $\llbracket \text{Alfonse realizes [that licorice is tasty $x$]]} \rrbracket^{w,g} = \forall w' \in \text{Dox}_{w,a}[\text{tasty}''(w')(g_{f,w}(\epsilon))(l)],$

if $\text{tasty}''(w')(g_{f,w}(\epsilon))(l)$;

else undefined

c. Where $\epsilon_c = \text{Alfonse}$ and $f_{c,\epsilon} = \lambda w_s. \lambda x_e. \text{MAX}_y[y \text{ has tastes similar to } x \text{ at } w \text{ in the way relevant for } c],$

$\llbracket \text{Alfonse realizes that licorice is tasty } x_c \rrbracket^c = \forall w' \in \text{Dox}_{w,a}[\text{tasty}''(w')]$

$(\text{MAX}_y[y \text{ has tastes similar to } a \text{ at } w \text{ in the way relevant for } c])(l)],$

if $\text{tasty}''(w')$(MAX$_y[y \text{ has tastes similar to } a \text{ at } w \text{ in the way relevant for } c])(l);$

else undefined

But this won’t work: suppose the example varies slightly so that the addressee does not like the taste of licorice, even though the speaker does. In accepting the assertion in this context, the addressee is still typically committed to liking the taste of licorice as well. But this commitment doesn’t follow if the content of (46-a) in such a context is that Alfonse realizes that licorice is tasty to the group with tastes relevantly similar to Alfonse’s: then the addressee in accepting what this proposition presupposes need make no commitment regarding her own tastes, since she can felicitously and without pretense commit to licorice being tasty to that group, even while not committing to it being tasty to herself.

Thus the situation in which all three characters share a commitment in virtue of the assertion and acceptance of the factive report is inexplicable, and the contextualist has no plausible way of explaining the behavior of factivity with respect to experiential predicates in attitude reports.

This sort of difficulty isn’t exclusive to factive verbs, but rather is symptomatic of a general problem with contextualist semantics, involving the tracking of mutual commitment to experiential dispositions in virtue of mutual commitment to a single proposition. Factive verbs happen to track such mutual commitment via a lexical item, but periphrastic constructions can be used to argue for the same points. A sentence like Alfonse thinks licorice is tasty, and it is, where the attitude report and commitment on the speaker’s part are tied

\[20\]What is ‘the contextually relevant way’ that the tastes must be shared? It seems in this case it has to be narrow enough that it only tracks tastes with respect to licorice: for (46-a) is felicitous even if the speaker, addressee, and Alfonse all realize that, in liking licorice, Alfonse differs from any relevant group one might pick out that otherwise shares his tastes. This apparently commits the contextualist to rapid shifts in these fine-grained similarity relations, such that e.g. Alfonse realizes that licorice is tasty and that marzipan isn’t tasty must track licorice-similarity in the first embedded conjunct and marzipan-similarity in the second.

\[21\]It does no good to say that the addressee becomes committed to liking the taste of licorice when committing to being in the licorice-liking group, and not when not committing to being in that group: normally the addressee becomes committed to liking the taste of licorice in virtue of accepting the speaker’s assertion, regardless of whether the addressee actually likes licorice: where the addressee is independently committed to disliking licorice, accepting the speaker’s assertion in such a context is anomalous or insincere, and the present account can make no sense of this.
to distinct conjuncts, can be used to run the same arguments (cf. Lasersohn 2009: 372 for a similar point about truth-sensitive adverbs like correctly).

1.1.4 Argument IV: agreement and disagreement

The verbs agree and disagree characterize doxastic attitudes that distinct agents hold towards a single propositional content (cf. Cappelen & Hawthorne 2009: 54-67). Agree- and disagree-reports that embed experiential predications are often felicitous and judged true based only on the experiential reactions (and resulting opinions) of the agents in question. In many cases, there is no plausible single proposition for these agents to agree on or disagree over that the embedded clause can denote on a contextualist semantics, and so the correctness of these reports is mysterious.

Doxastic verbs like think allow distributive readings with complex subjects that relate distinct agents to distinct propositional contents. Suppose Alfonse and Bethany are testing the properties of licorice by feeding it to animals: Alfonse feeds it to cats, while Bethany feeds it to dogs. They both conclude that licorice is tasty to the sort of animal they’ve been feeding it to, and so (49-a) and (49-b) are true.

(49) a. ✓ Alfonse thinks that licorice is tasty to cats.
   b. ✓ Bethany thinks that licorice is tasty to dogs.

Suppose further that both Alfonse and Bethany are under the impression that licorice is not tasty to the sort of animal they didn’t feed: thus Alfonse thinks that licorice isn’t tasty to dogs, and Bethany thinks it isn’t tasty to cats. Their beliefs are summarized in (50).

(50) Who is licorice tasty to?

<table>
<thead>
<tr>
<th></th>
<th>cats</th>
<th>dogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfonse</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Bethany</td>
<td>X</td>
<td>✓</td>
</tr>
</tbody>
</table>

If a curious interlocutor asks how the investigation went, (51-a) can be read as a true report of Alfonse’s and Bethany’s conclusions – (51-b) can follow this up to clarify the intended target of belief for each member of the complex subject.

(51) a. ✓ Alfonse and Bethany (both) think that licorice is tasty.
   b. (Alfonse, to cats, and Bethany, to dogs).

Where true, (51-a) means that both Alfonse and Bethany think that licorice is tasty to the sort of animal they were investigating. The report doesn’t attribute a common belief to Alfonse and Bethany, appropriately, since in this situation they have no relevant belief in common.\(^{22}\)

\(^{22}\)Assume that Alfonse and Bethany have no opinions either on the taste of licorice themselves, or on the reaction to licorice of any other third party. The attempts in e.g. Moltmann (2010: 190-191) and Lasersohn (2017: 151) to use distributive reports of this sort as a diagnostic for shared propositional content of attitudes fail for this reason. Similar observations hold for anaphoric implicit arguments generally, e.g. in Alfonse and Bethany (both) think that a local bar serves sours.
This sort of reading is captured when the complex subject quantifies into an open sentence and binds off the experiencer index $\epsilon$ as follows, where Alfonse and Bethany are Montague-lifted to denote quantifiers (54-a)-(54-b), and denotes standard generalized conjunction (54-c), as in Partee & Rooth (1983), think has an ordinary denotation relating agents to embedded propositions in terms of doxastic alternatives (53-a), and $x_\epsilon$ makes use of the function index $f_\epsilon$ introduced in §1.1.

(52)

$$\uparrow\text{Alfonse}_\epsilon \text{ and } \uparrow\text{Bethany}_\epsilon \ e_\epsilon \ \text{think} \ that \ licorice \ is \ tasty \ x_\epsilon$$

(53) a. $[[\text{think}]]^{w,g} = \lambda\phi_{a,st}.\lambda x_\epsilon.\forall w' \in Dox_{w,a}[\phi(g)(w')]$
   b. $[[\text{licorice is tasty } x_\epsilon]]^{w,g} = \text{tasty}''(w)(g_{f,w}(\epsilon))(l)$
   c. $[[e_\epsilon [\text{think that licorice is tasty } x_\epsilon]]]^{w,g} = \
   \forall w' \in Dox_{w,g}(\epsilon)[\text{tasty}''(w')(g_{f,w}(\epsilon))(l)]$

(54) a. $[[\uparrow\text{Alfonse}_\epsilon]]^{w,g} = \lambda\phi_{a,st}.\phi(g[\epsilon \rightarrow a])(w)$
   b. $[[\uparrow\text{Bethany}_\epsilon]]^{w,g} = \lambda\phi_{a,st}.\phi(g[\epsilon \rightarrow b])(w)$
   c. $[[\text{and}]]^{w,g} = \lambda\alpha.\lambda\beta.\alpha \Pi \beta$
   d. $[[\uparrow\text{Alfonse}_\epsilon \text{ and } \uparrow\text{Bethany}_\epsilon]] = \
   \lambda\phi_{a,st}.\phi(g[\epsilon \rightarrow a])(w) \land \phi(g[\epsilon \rightarrow b])(w)$

(55) $[[[\uparrow\text{Alfonse}_\epsilon \text{ and } \uparrow\text{Bethany}_\epsilon]]_\epsilon[e_\epsilon \ [\text{think that licorice is tasty } x_\epsilon]]]^{w,g} = \
   \forall w' \in Dox_{w,a}[\text{tasty}''(w')(g_{f,w}(a))(l)] \land \forall w' \in Dox_{w,b}[\text{tasty}''(w')(g_{f,w}(b))(l)]$

In a context $c$ such that $f_{c,\epsilon}$ is the function that maps worlds $w$ to individuals $x$ to the individual (kind) that $x$ was investigating the tastes of at $w$, the desired result is achieved, where small caps denote the relevant kind.

(56) $\langle\uparrow\text{Alfonse}_\epsilon \text{ and } \uparrow\text{Bethany}_\epsilon \ e_\epsilon \ \text{think that licorice is tasty } x_\epsilon\rangle^c = \
   \lambda w_a.\forall w' \in Dox_{w,a}[\text{tasty}''(w')(\text{CAT})(l)] \land \forall w' \in Dox_{w,b}[\text{tasty}''(w')(\text{DOG})(l)]$

But agree differs from think in disallowing such distributive readings (cf. ibid.: 56-57). There’s no reading of (57) that can be appropriately judged true in relation to the situation described by (50). Alfonse and Bethany don’t share any relevant beliefs regarding the tastiness of licorice, and so there is no candidate propositional content denoted by the embedded clause that both believe.\textsuperscript{23}

\textsuperscript{23}Instead of sentences like (57), Cappelen & Hawthorne make use of complex-subject agree-reports, e.g. Alfonse and Bethany agree that licorice is tasty. This obscures the crucial difference in the argument structure of think versus agree (compare (53-a) to (58)). For the latter, neither internal argument to the verb needs to be overt: either or both can be implicit and anaphoric:

(i) a. Alfonse agrees with Bethany.
   b. Alfonse agrees that licorice is tasty.
(57)  $\text{Alfonse agrees with Bethany that licorice is tasty.}$

$\text{Agree}$ composes with an individual denoted by a $\text{with}$-headed PP, a proposition, and a (subject) individual, and requires that both individuals believe the proposition denoted by the embedded clause. It thus allows for two distinct agents to be related to the intension of the embedded clause without a complex subject, and from this the lack of a distributive reading resulting from binding off the experiencer index follows.

(58)  $[\text{agree}]^{w,g} = \lambda x_e. \lambda y_e. \forall w' \in D(x_{w,x}, D(x_{w,y}, \phi(g)(w')))$

Depending on the value of $f_{c,\epsilon}$ in the context of utterance, the relevant proposition asserted to be believed by both Alfonse and Bethany may differ, but relative to any single context the same proposition must be believed by both. And so the falsity of (57) as opposed to (51-a) is intelligible.

But $\text{agree}$-reports involving experiential predicates can be read as true, even where the contextualist semantics predicts that there is no plausible proposition that two distinct agents believe and that can be denoted by the embedded clause. Suppose that both Alfonse and Bethany like the taste of licorice (and on this basis alone feel justified in asserting $\text{Licorice is tasty}$), but that each mistakenly believes that the other is repulsed by it. The situation is analogous to that in (50), and their beliefs are summarized as follows.

(60)  $[\text{Alfonse}\epsilon [\text{agrees [with Bethany]} [\text{that [licorice is tasty]}]]]^{w,g} = \forall w' \in D(x_{w,a}, D(x_{w,b}, \text{tasty}'(w')(f_{w,a}(a))(l))$

This suggests that the former complex-subject cases have the same argument structure as (57), with an implicit individual internal argument that’s preferably reciprocal. That it’s not inherently reciprocal is seen from e.g. $\text{Gamela thinks that licorice is tasty. Alfonse and Bethany (both) agree:}$ this can read that Alfonse and Bethany agree with Gamela, not with each other. Nor is $\text{agree}$ inherently anti-distributive: e.g. as expected on the present treatment, $\text{Alfonse and Bethany (both) agree with Gamela that licorice is tasty}$ can be read as true where both Alfonse and Gamela think licorice is tasty to cats, and both Bethany and Gamela think licorice is tasty to dogs.

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**Who is licorice tasty to?**

<table>
<thead>
<tr>
<th></th>
<th>Alfonse</th>
<th>Bethany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfonse</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Bethany</td>
<td>✗</td>
<td>✓</td>
</tr>
</tbody>
</table>

---

c. Alfonse agrees.

This suggests that the former complex-subject cases have the same argument structure as (57), with an implicit individual internal argument that’s preferably reciprocal. That it’s not inherently reciprocal is seen from e.g. $\text{Gamela thinks that licorice is tasty. Alfonse and Bethany (both) agree:}$ this can read that Alfonse and Bethany agree with Gamela, not with each other. Nor is $\text{agree}$ inherently anti-distributive: e.g. as expected on the present treatment, $\text{Alfonse and Bethany (both) agree with Gamela that licorice is tasty}$ can be read as true where both Alfonse and Gamela think licorice is tasty to cats, and both Bethany and Gamela think licorice is tasty to dogs.
In such a situation, a distributive belief report can be read as true.

(62) ✓ Alfonse and Bethany (both) think that licorice is tasty.

This is expected on the contextualist semantics: the structure in (52) and the denotation in (55) work fine, and in a context in which $f_{c,e}$ is vacuous, denoting the (function from worlds to) the identity function on individuals, the resulting reading is that Alfonse and Bethany both think that licorice is tasty to themselves. Thus even though they share no relevant belief, the distributive reading can relate them to distinct contents and be true.

What is unexpected is that, unlike with the situation in (50), the corresponding agree-reports can be read as true as well. Despite being misinformed about each other’s beliefs, Alfonse and Bethany can truly be reported as agreeing that licorice is tasty (even though they don’t know that they do).

(63) ✓ Alfonse agrees with Bethany that licorice is tasty.

But what is the proposition they both believe in common? The obvious answer, that licorice is tasty (simpliciter), isn’t available on the contextualist semantics, since the embedded clause can’t denote such a proposition: in $c$, it must be that they both believe that licorice is tasty by the standard of $e_c$ (or some individual functionally related to it). But there is no candidate for such an individual that accurately describes their beliefs. There are four options as to what it could be.

1. $e_c$ is some group containing Alfonse, but not Bethany
   (possibly just Alfonse himself).

2. $e_c$ is some group containing Bethany, but not Alfonse
   (possibly just Bethany herself).

3. $e_c$ is some group containing both Bethany and Alfonse
   (possibly the group consisting of just Bethany and Alfonse themselves).

4. $e_c$ is some group containing neither Alfonse nor Bethany.

[1] and [3] wrongly attribute to Bethany the belief that Alfonse likes licorice; [2] and [3] wrongly attribute to Alfonse the belief that Bethany likes licorice; [4] gives an irrelevant reading false in this scenario (cf. fn. 22). Appealing to $f_{c,e}$ won’t help, since the output of the function will be faced with the same quadrilemma. The contextualist semantics thus fails to predict the behavior of agree with respect to experiential predicates.24

A parallel problem arises for disagree, which relates two agents to a single propositional content, and requires that one believe, and the other disbelieve, that content. Suppose that Alfonse and Bethany are again conducting their licorice investigations: Alfonse comes to believe that licorice is tasty to cats, while Bethany comes to believe that it isn’t tasty to dogs. Further, each accepts the others’ conclusions, and so they agree as to all the results: their beliefs are then as in (64).

24 A strategy analogous to the one tried in §1.1.3 – relating Alfonse and Bethany both to a de dicto belief regarding a group of experiencers relevantly like themselves – won’t work either, as the reader can confirm.
(64) **Who is licorice tasty to?**

<table>
<thead>
<tr>
<th></th>
<th>cats</th>
<th>dogs</th>
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<tbody>
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<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Bethany</td>
<td>✓</td>
<td>✗</td>
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</table>

If a curious interlocutor asks as to the results of Alfonse’s and Bethany’s investigations, a *think*-report like (65) can be judged true, but a *disagree*-report as in (66) can’t.

(65) ✓ Alfonse thinks that licorice is tasty, but Bethany doesn’t.

(66) ✗ Alfonse disagrees with Bethany that licorice is tasty.

This is unsurprising, given the above: (65) can be read to mean that Alfonse, but not Bethany, thinks *licorice is tasty to the animal they were investigating*. (66), by contrast, can’t be read as true, because there is no plausible proposition that the embedded clause could denote over which Alfonse and Bethany disagree. A denotation for *disagree* capturing this behavior would is as in (67).

(67) 
\[
\text{[disagree]}^{w,g} = \lambda x.\lambda \phi_{a,st}.\lambda y.\forall w' \in D_{ox_w,x}[\phi(g)(w')] \land \forall w' \in D_{ox_w,y}[\neg \phi(g)(w')]
\]

But in a situation in which Alfonse likes the taste of licorice, and on this basis alone feels justified in uttering *Loricice is tasty*, and Bethany doesn’t like the taste of licorice, and on this basis alone feels justified in uttering *Loricice isn’t tasty*, then the two can be felicitously and truly reported as disagreeing, and this is so even if they are entirely aware of each other’s tastes (and everyone else’s), so that they have no disagreements at all as to what is tasty to whom.

(68) **Who is licorice tasty to?**

<table>
<thead>
<tr>
<th></th>
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<th>Bethany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfonse</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Bethany</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

(69) ✓ Alfonse disagrees with Bethany that licorice is tasty.

The situation parallels that in (64), and yet the behavior of the *disagree*-report differs. Even if Alfonse’s and Bethany’s *de re* beliefs regarding what is tasty to whom entirely align, as do their *de dicto* beliefs about what is tasty to those groups relevantly similar in taste to themselves, they can still be reported as disagreeing, and so the contextualist can’t account for the behavior of this verb.

A final note on the doxastic nature of *disagree*: Huvenes (2012: 167) makes use of this verb as an explicit marker of disagreement, and on this basis suggests that disagreement need not be explained in terms of non-cotenability of semantic content, as in (70), where explicit disagreement is possible even though the interlocutors’ assertions are non-contradictory.

(70) Alfonse: I like this licorice.
Bethany: I disagree – it’s too sweet for me.

If *disagree* in (70) is the same verb that has been discussed above, and so has the same argument structure, then it has here two anaphoric implicit arguments, one of which is
propositional (cf. fn. 23): to the extent that this exchange is felicitous, it is so because this argument is valued for some proposition toward which the interlocutors have conflicting doxastic attitudes (if e.g. in liking the licorice, Alfonse commits to thinking that the licorice is tasty, and Bethany commits to the opposite in not liking it.

If the propositional argument is overt, then targeting what Alfonse says results in infelicity, precisely because there is no non-cotenability between Bethany’s belief state and the proposition asserted: #I disagree that you like this licorice – it’s too sweet for me. If the overt propositional complement makes explicit the doxastic requirements of disagree, this is problematic for contextualists and their fellow-travelers that want to explain disagreement involving experiential predicates generally by moving away from conflict in doxastic attitudes (cf. Huvenes 2014: 151-152; Wyatt 2018: 270-273). Doxastic conflict is precisely what disagree is sensitive to, and conflict at some other, non-doxastic level is not enough to make disagree-reports felicitous or true.

1.1.5 Argument V: acquaintance inferences

Assertions of experiential predications commit the speaker to having had direct experience of the relevant sort with the individual predicated of (cf. Pearson 2013: 117-118; Klecha 2014: 450-451; MacFarlane 2014: 3, Ninan 2014; Bylinina 2017: 300).

(71) Licorice is tasty.
⇒ The speaker has tasted licorice.

Pearson (2013: 122) takes this inference to be presuppositional: this is unsurprising on a contextualist semantics, which independently requires that experiential predicates enforce direct experience presuppositions with respect to their experiencer argument (cf. §1.1), and can posit that the value of the experiencer is by default anchored to the speaker (cf. (21)).

The proposition implied is also identical to that implied in the presuppositional cases. The inference in (71) thus reduces to the inference in (72), if (71) is uttered when no experiencer is salient, antecedent, or accommodable, so that \( s_c = \epsilon_c \).

(72) Licorice is tasty to me.
⇒ The speaker has tasted licorice.

(73) a. \( [(71)]^c = \{\text{licorice is tasty } x_c\}^c = \lambda w_s.\text{tasty}''(w)(\epsilon_c)(l) \)
b. \( [(72)]^c = \{\text{licorice is tasty to me}\}^c = \lambda w_s.\text{tasty}''(w)(s_c)(l) \)

But Ninan (2014) has demonstrated that this isn’t right: (71) involves a distinct ‘acquaintance inference’ whose behavior deviates from direct experience presuppositions in several respects.

First, acquaintance inferences can’t be canceled beneath external negation, while presuppositions can be (cf. ibid.: 297-298; the italicization of the negation marks focus: this and the justification clause are meant to prime the acceptability of external negation).

(74) a. Licorice isn’t tasty to me, because I haven’t tasted it.
b. #Licorice isn’t tasty, because I haven’t tasted it.

Second, acquaintance inferences can’t be accommodated into the local intensional environ-
ment, unlike presuppositions (cf. *ibid.*: 299-300). The reader can confirm that this same pattern holds for the range of intensional contexts in (38)-(40).

(75) a. Licorice must be tasty to me.
\[ \leftrightarrow_{acc} \text{It must be that: the speaker has tasted licorice, and likes its taste.} \]

b. Licorice must be tasty.
\[ \not\leftrightarrow_{acc} \text{It must be that: the speaker has tasted licorice, and likes its taste.} \]

Third, acquaintance inferences are canceled beneath predictive operators, rather than being projected into the future, as presuppositions are (cf. Klecha 2014: §1.3).

(76) a. The licorice will be tasty to me.
\[ \leftrightarrow_{acc} \text{It will be that: the speaker tastes the licorice, and likes its taste.} \]

b. The licorice will be tasty.
\[ \not\leftrightarrow \text{It will be that: the speaker tastes the licorice, and likes its taste.} \]

But the contextualist holds that *tasty* in (71) composes with a covert experiencer, in the same way that it would compose with an overt experiencer PP, so that all occurrences of experiential predicates should give rise to direct experience presuppositions in the same way, with respect to the predicate’s experiencer argument.

The problem that the contextualist faces with acquaintance inferences is thus twofold. First, assertions like (71), with no salient, antecedent or accommodable experiencer, don’t give rise to direct experience presuppositions. Second, these assertions give rise to a different sort of inference for which a contextualist semantics has no account, because it treats all instances of experiential predicates on a par in virtue of composing with an experiencer argument.

The contextualist semantics can accommodate these facts by altering itself to fit the suggestions in §1.1.2, according to which experiencer PPs, and covert experiencers appearing in exocentric contexts, are modifiers of the experiential predicate that shift the assignment function, and introduce direct experience presuppositions (((77-a)-(77-b); repeated from (43-b), (45-a)). Experiential predicates themselves then inherently encode reference to an experiencer ((77-c); repeated from (43-a)).

(77) a. \[ [tasty]^{w,g} = \lambda x.e.\text{tasty}''(w)(g(e))(x) \]

This allows the contextualist a distinction between unmodified and modified uses of experiential predicates, with only modified uses imposing presuppositions, as desired. Bare uses would then merely be constrained by a dispositional reading of the predicate, and these could conceivably give rise to acquaintance inferences anchored to \(e_c\), e.g. for epistemic reasons as Ninan (2014: 302) suggests.
But acquaintance inferences are solely speaker-directed. Since virtually all unmodified, non-exocentric experiential predications give rise to acquaintance inferences, this means that for such a move to work, the contextualist is forced to claim that $\epsilon_c$ must invariably be the speaker, and that the only way to shift the experiencer is by means of the same modifiers that introduce direct experience presuppositions.

$$\epsilon_c = s_c$$

But this raises a problem with respect to the contextualist treatment of conversational denial, for which anchoring bare uses of experiential predicates intrinsically to the speaker yields the wrong results.

Echoic denials of experiential predications with no overt experiencer PP (79-a) are in general felicitous: these involve a rejective discourse particle like *no* followed by a counter-assertion using the same sentence but with sentential negation (79-b). This isn’t so for echoic denials of experiential predications with an overt experiencer PP including a speaker-indexical (80); cf. Kölbel (2002: §3.3); Lasersohn (2005: §2).

Let both (79) and (80) take place in a context in which there is no salient, antecedent, or accommodable experiencer, and let both Alfonse and Bethany make their assertions sincerely in each case only on the basis of their own experiential reactions to licorice, so that both their assertions trigger acquaintance inferences. Further, let both Alfonse and Bethany be aware of and take for granted the other’s attitude towards licorice.

(79)  
(a) ALFONSE: Licorice is tasty.  
(b) BETHANY: No, licorice isn’t tasty.

(80)  
(a) ALFONSE: Licorice is tasty to me.  
(b) BETHANY: #No, licorice isn’t tasty to me.

This is a problem for a contextualist semantics that adopts (78): this move reduces (80) to (79), the only predicted difference between the two being (if the above recommended modifications are made) that the former triggers distinct acquaintance inferences on the part of the speakers, while the latter triggers distinct speaker-oriented direct experience presuppositions.

As has been discussed at length in *ibid.* and elsewhere, no independently plausible account of the felicity of echoic denials makes sense of the felicity of the exchange in (79) on an inherently speaker-oriented account, since such an account results in (79-a) and (79-b) not being assertions of conflicting contents. There is no issue with accommodating both that licorice is tasty by Alfonse’s standard, and that it is not tasty by Bethany’s, into the

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25In exocentric contexts, as when uttering *The licorice is tasty* while Alfonse is the salient experiencer (cf. (11-a)), there results not an acquaintance inference anchored to Alfonse, but rather a direct experience presupposition anchored to him: the reader can confirm this by running the tests in this section on the relevant case.

26(80) can be read as felicitous on some intonations in certain contexts. To block this, (79) and (80) are to be read with the intonation characteristic of an echoic denial, which marks the difference in felicity obviously. The same point can also be made from the behavior of elliptical rejection: In response to *Licorice is tasty,* the clearest reading of *No, it’s not* that anchors the elided predicate to the property expressed by the first speaker does not deny that licorice is tasty by the speaker’s lights, as an inherently speaker-oriented view requires.
common ground. (79) is expected to pattern like (80) in this respect, yielding infelicity for
denial targeting compatible contents, contrary to fact.

There is an extensive literature disputing whether a contextualist semantics can make
sense of an exchange like (79) (cf. the references in Cappelen & Huvenes forthcoming), but
an inherently speaker-oriented semantics for unmodified uses of experiential predicates is un-
acceptable for this task.²⁷ An account of acquaintance inferences that requires commitment
to such a faulty semantics is equally unacceptable.

§1.2 shows that the contextualist’s problems discussed above are dispelled if experiential
predicates are not forced to take an experiencer semantic argument. As such, contextualism
has little going for it as a semantic hypothesis, and pending some undiscovered good linguistic
reason to pick it up again, it ought to be abandoned for the sorts of constructions that the
literature has so far discussed.

1.2 Relativism: the experiencer as intensional parameter

The relativist holds that the extension of an expression is evaluated relative to a standard
of experience, in addition to classical intensional parameters, like a world of evaluation.

As on a contextualist semantics, there are many ways to model a standard of experience
(cf. fn. 2). The following adopts the treatment in Lasersohn (2005) and Stephenson (2007a),
which take these standards to be type-e experiencers (their ‘judges’). The intensional type
of an expression α in general is thus \( \langle s, \langle e, \tau_\alpha \rangle \rangle \), where \( \tau_\alpha \) is the extensional type of \( \alpha \), and
the intensional type of an expression of extensional type \( t \) is \( \langle s, \langle e, t \rangle \rangle \), that of a ‘relativist-
proposition.’²⁸

Experiential predicates are ‘experiencer-sensitive,’ in that their extensions are determined
non-trivially relative to the experiencer parameter at some world (81-a)-(81-b). A standard
denotation for the experiencer-sensitive tasty is as in (82-a). Non-experiential expressions
are experiencer-insensitive, such that the experiencer parameter is idle in determining their
extensions (82-b) (cf. Sæbø 2009: 335, ex. 15).

\[
\text{(81) a. } f \text{ of type } \langle s, \langle e, \tau \rangle \rangle, \text{ where } \tau \text{ is an extensional type,} \\
\text{ is experiencer-sensitive at } w \text{ iff } \exists x, y[f(w)(x) \neq f(w)(y)]; \text{ otherwise, } f \text{ is experiencer-insensitive at } w.
\]

²⁷ A method of salvaging an intrinsically speaker-oriented contextualist semantics may be found in a strain
of contextualist thought that accounts for aspects of disagreement involving experiential predicates by attrib-
uting semantic blindness or incompetence to speakers: cf. Stojanovic (2007: §2), Cappelen & Hawthorne
(2009: 118), and cf. Zeman (2016: §6), Baker (2012: §4) for the theoretical dangers of appealing to seman-
tic blindness. López de Sa (2008) and Gutzmann (2016) offer intrinsically speaker-oriented contextualist
semantics, but with additional machinery to handle the intelligibility of conversational disagreement.

²⁸ More recent relativist treatments incorporate world- and time-sensitivity into experiential standards,
casting them as world-time-individual triples (Lasersohn 2017: 95) or abstract standards determined relative
to such triples (MacFarlane 2014: 151). This fixes experiential standards by worlds and times independent
of the world and time of evaluation: the relativist needs this to adequately treat (i) tense in relation to how
experiencers’ dispositions to experience change over time (cf. MacFarlane 2014: 149, 163-165; Lasersohn
2017: 139-141), and (ii) certain modal evaluations of experiential predicates (cf. the worry in Lasersohn
2005: 663, fn. 13; MacFarlane 2014: 165-166). The following ignores these issues, as well as non-world,
non-experiencer intensional parameters where irrelevant.
b. $\alpha$ is experiencer-sensitive iff $\exists w'[\lambda w_s.\lambda x_e.([\alpha]_{w,x})$ is experiencer-sensitive at $w']$; otherwise, $\alpha$ is experiencer-insensitive.

\[(82) \begin{align*}
\text{a. } [\text{tasty}]_{w,x} &= \lambda y_e.\text{tasty}''(w)(x)(y) \\
\text{b. } [\text{vegetarian}]_{w,x} &= \lambda y_e.\text{vegetarian}'(w)(y)
\end{align*}\]

The metalanguage predicate ‘tasty’” in (82-a) is the same one used in the standard contextualist denotation for tasty (1), and is to be read in the same way (cf. (2)). Relativism is a dyadic semantics in the sense that it invokes a metalanguage predicate that is dyadic relative to worlds: as on a contextualist account, there are no experiential properties of individuals simpliciter at worlds, but rather only stimuli’s production of, or disposition to produce, experiences in experiencers.

But the relativist denotation for an experiential predicate is extensionally monadic, not dyadic: tasty composes only with a stimulus argument, and not with an experiencer argument. The experiencer argument to the metalanguage predicate ($x$ in (82-a)) is saturated not by something with which the object language predicate must compose, but rather with the value of an intensional parameter (though see below: the relativist can also allow composition with experiencers via modifiers).

This has consequences for the semantic values of the expressions involved, and for the semantics-pragmatics interface.\(^{29}\) For instance, some truth-apt sentences are experiencer-sensitive.

\[(83) \begin{align*}
\text{a. } \text{Licorice is tasty.} \\
\text{b. } [\text{licorice [is tasty]}]_{w,x} &= \text{tasty}''(w)(x)(l) \\
\text{c. } \langle\text{licorice is tasty}\rangle^c &= \lambda w_s.\lambda x_e.\text{tasty}''(w)(x)(l)
\end{align*}\]

Where at $w$, licorice produces, or is disposed to produce, gustatory pleasure in $x$, but not in $y$, $\langle\text{licorice is tasty}\rangle^c(w)(x) = \text{true}$, while $\langle\text{licorice is tasty}\rangle^c(w)(y) = \text{false}$.

This raises the question of how the truth of a relativist-proposition is to be assessed at a world at which it is experiencer-sensitive, since it has no truth value simpliciter at such a world. To assess a proposition as true is to take it to be true: this primitive notion has pragmatic consequences, as one who assesses a proposition as true will, pending confidence in that assessment, commit to its truth, and may thereby come to believe it, act as though it were true, assert it felicitously under Gricean sincerity conditions, etc. The same holds mutatis mutandis for assessing a proposition as false.

Speakers operate under norms governing which values for intensional parameters are to be supplied as the arguments to a proposition in assessing it for truth. This can be explicited using the notion of ‘contexts of assessment’ (MacFarlane 2007: 26 ff; 2014: 60 ff; Lasersohn 2017: 93-94). Informally, these are concrete situations in which truth assessments are made; formally, they can be treated as tuples of parameter values $c'$ (and so as objects of the same kind as contexts of utterance), including at least $w_{c'}$, the world of assessment, and $a_{c'}$, the assessor (the one who assesses for truth).

\(29\)Stojanovic (2007: §4) demonstrates a weak equivalence between contextualist and relativist semantics in the assignment of truth values relative to parameters, but this equivalence doesn’t extend to the assignment of contents to expressions: compare e.g. (83-c) to its contextualist near-counterpart (14-b) (cf. Lasersohn 2008: 317-318).
Two aims of truth assessment can be distinguished: assessment is ‘correct’ when the assessor ‘gets it right,’ and it is ‘proper’ when the assessor behaves in accordance with pragmatic norms, in some suitably restricted sense. Leaving experiential predicates (and other problematic expressions) to the side, it’s trivial to state on a non-relativist semantics, where propositions $\phi$ are of type $\langle s, t \rangle$, how these operate: correct and proper truth assessment both track the truth value of the proposition at the world of assessment.\(^{30}\)

\[(84)\]
\[
\begin{align*}
\text{a. (i) } \phi \text{ is correctly assessed as true in } c' \text{ iff } & \phi(w_{c'}) \\
& \text{(and is incorrectly assessed as true in } c' \text{ otherwise).} \\
\text{(ii) } \phi \text{ is correctly assessed as false in } c' \text{ iff } & \neg\phi(w_{c'}) \\
& \text{(and is incorrectly assessed as false otherwise).}
\end{align*}
\[
\begin{align*}
\text{b. (i) } \phi \text{ is properly assessed as true in } c' \text{ iff } & \phi(w_{c'}) \\
& \text{(and is improperly assessed as true in } c' \text{ otherwise).} \\
\text{(ii) } \phi \text{ is properly assessed as false in } c' \text{ iff } & \neg\phi(w_{c'}) \\
& \text{(and is improperly assessed as true in } c' \text{ otherwise).}
\end{align*}
\]

Truth assessment is correct just in case it tracks the truth of the proposition at the world of assessment, and pragmatic norms bid speakers to assess relative to the world of assessment, and not relative to counterfactual situations. Thus $\phi$ is correctly assessed as true in $c'$ iff it is properly assessed as true in $c'$. Further, since the assessor $c'_{a}$ plays no role in these definitions, correct and proper truth assessment converge for all assessors at a world.

The question is then how speakers are to choose values for the intensional parameters in assessing the truth of relativist-propositions, and in particular for those that are experiencer-sensitive at the world of assessment. The relativist’s answer is as follows, where ‘$\phi$’ is a variable over relativist-propositions of type $\langle s, \langle e, t \rangle \rangle$ (and mutatis mutandis for falsity).\(^{30}\)

\[(85)\]
\[
\begin{align*}
\text{a. } \phi \text{ is true simpliciter at } w \text{ iff } & \forall x[\phi(w)(x)]. \\
\text{b. } \phi \text{ is false simpliciter at } w \text{ iff } & \forall x[\neg\phi(w)(x)].
\end{align*}
\]

\[(86)\]
\[
\begin{align*}
\text{a. (i) } \phi \text{ is correctly assessed as true in } c' \text{ iff } & \phi \text{ is true simpliciter at } w_{c'}. \\
\text{(ii) } \phi \text{ is incorrectly assessed as true in } c' \text{ iff } & \phi \text{ is false simpliciter at } w_{c'}. \\
\text{b. } \phi \text{ is properly assessed as true in } c' \text{ iff } & \phi(w_{c'})(a_{c'}) \\
& \text{(and is improperly assessed as true otherwise).}
\end{align*}
\]

\[(86-a)\] says that correct truth assessment tracks the truth of the relativist-proposition at the world of assessment for all experiencers (cf. Lasersohn’s 2017: 102, ex. 141 ‘absolute’ truth predicate). Where $\phi$ is experiencer-insensitive at $w$, this condition effectively collapses into its non-relativist counterpart in (84-a), since by definition $\phi$ is then true or false simpliciter at $w$. But on this definition, relativist-propositions that are experiencer-sensitive at $w$ can neither be correctly nor incorrectly assessed as true at $w$: there is no ‘fact of the matter’ at $w$ as to whether they hold or not.\(^{31}\)

\[^{30}\text{For any actual act of assessment in } c', w_{c'} \text{ is the actual world. Formulating the norms with respect to the world of assessment generally takes care of counterfactual correct and proper assessment automatically: if things were different, it would be correct and proper to assess with respect to the way things would be. Lasersohn (2013: §7) comments on the world of evaluation as fixed by the context of assessment.}\]

\[^{31}\text{If the standard of experience parameter is simply an experiencer, as (86-a) assumes, a relativist-proposition can be true or false simpliciter at a world just because all experiencers happen to be the same at}\]
(86-b) says that proper truth assessment tracks the truth of the relativist-proposition at the world of assessment relative to the assessor: it is ‘autocentric,’ and so sensitive to the assessor’s own (disposition to) experience. Where \( \phi \) is experiencer-insensitive at \( w \), autocentric truth assessment of it is vacuous at \( w \), since then value of the experiencer intensional parameter plays no non-trivial role. But where \( \phi \) is experiencer-sensitive at \( w \), proper truth assessment at \( w \) crucially depends on the assessor’s (disposition to) experience: thus if at \( w \), licorice produces, or is disposed to produce, gustatory pleasure in \( x \), but not in \( y \), then it is proper for \( x \) to assess *that licorice is tasty* (83-c) as true at \( w \), and proper for \( y \) to assess it as false at \( w \).\(^{32}\)

For experiencer-insensitive relativist-propositions, the norms in (86) effectively collapse into the non-relativist norms in (84): correct and proper truth assessment converge, and they do so for all assessors at the world in question. But experiencer-sensitive propositions deviate: correct assessment of them is a non-issue, and proper assessment varies from experiencer to experiencer depending on the relevant (dispositions to) experience. Not to assess in accord with one’s own experience is a pragmatic error.\(^{33}\)

With this machinery for truth assessment in place, speakers can assert, reject, retract, etc. relativist-propositions governed by norms on sincerity and evidence as standard: there’s no need for special relativist pragmatic norms governing speech acts, as e.g. Lasersohn (2005: 670), Stephenson (2007a: 509), and MacFarlane (2014: 103, 108, 110) suggest.

Competent speakers are aware that the norm governing proper truth assessment in (86-b) holds for speakers generally, and not just for themselves.\(^{34}\) Whether one speaker takes another to be assessing the truth of a relativist-proposition properly doesn’t always track whether the first speaker agrees with the second regarding the truth of that proposition: where \( x \) likes the taste of licorice and \( y \) doesn’t, and both are fully knowledgable about the that world with respect to the relevant sorts of (dispositions to) experience. If this ‘experiential unanimity’ effect is an undesirable consequence, the relativist can avoid it by complicating the intensional parameter to be world-sensitive (cf. fn. 28), and make quantification in (85) range over these world-bound experiential standards, so that the experiencer-sensitivity of a relativist-proposition at a world doesn’t depend on the states of experiencers at that world.

---

\(^{32}\) An equivalent way of saying this (cf. Egan 2010: 276-279) is that relativist-propositions are properties, in the vein of Lewis (1979) (note that their type, \( s, (e, t) \), is that of the intension of a property of individuals on a non-relativistic semantics), and that speakers self-attribute those properties. Thus, *that licorice is tasty* denotes the property of liking the taste of licorice, and to commit to it is to take oneself de se to be a liker of licorice. This is the same as casting the content of declarative clauses as sets of centered worlds, in which the experiencer plays the role of center (possibly along with other roles: cf. Stephenson 2010).

\(^{33}\) This error can be grounded in factual errors, where assessors are ignorant about their own experiences: cf. Kölbel (2009: 383, fn. 12); Lasersohn (2017: 93-94). Lasersohn (2005: 670-674; 2009: 364; 2017: §7.2, §7.5) allows for proper truth assessment sometimes to be non-autocentric, such that the proper value for the experiencer parameter in assessing for the truth of \( \phi \) in \( c' \) is not \( a_c \), but rather some individual contextually salient in \( c' \). This is meant to treat exocentric uses of experiential predicates. In dealing with exocentricity, §[] argues that this possibility should be abandoned.

\(^{34}\) There are linguistic reflexes of this fact: it is typically the speaker’s experiences that a non-exocentric assertion of *Licorice is tasty* (putting aside complications with defective experiences – §[]) must track in order to be felicitous, not just according to the speaker, but to any interlocutor: thus, such an utterance by Alfonse implies both that Alfonse has tasted licorice (as an acquaintance inference: cf. §1.1.5, §[]) and that Alfonse likes the taste of licorice (as an expressive effect: cf. §[]). Similar effects arise for attitude holders in ordinary doxastic reports, as in *Alfonse thinks that licorice is tasty*, which implies these same things (cf. §[]).
other’s tastes, both $x$ and $y$ will take the other to be assessing properly just in case they take the other to disagree with them regarding the truth of *that licorice is tasty*. In such situations, it’s not possible for competent speakers to take no issue whatsoever with one another: either they both assess properly, and so disagree, or they agree, and so at least one assesses improperly.\(^{35}\)

Finally, the relativist can allow experiential predicates to compose with experiencers, by treating lexical items that introduce experiencers as modifiers that shift the experiencer parameter (cf. Lasersohn 2005: 666, ex. d; 2017: 103-106; MacFarlane 2014: 153-156). This can be done either overtly, to capture experiencer PPs (87-a), or covertly, to capture exocentric readings (87-b) (allowing extensions to be determined relative to an assignment $g$, as in §1.1). Presumably, overt experiencer PPs are infelicitous with non-experiential predicates due to their vacuity (cf. the similar point for contextualist *find* in §1.1.1).

\begin{equation}
\begin{align*}
(87) & \quad \text{a. } [\text{to}]^{w,x}_{e.t} = \lambda y.e.\lambda P_{s,(e,et)} \cdot \lambda z.e.P(w)(y)(z) \\
& \quad \text{b. } [x_{e}]^{w,x.g} = \lambda P_{a,(s,(e,et))} \cdot \lambda y.e.P(g)(w)(g(\epsilon))(y)
\end{align*}
\end{equation}

This allows the relativist access to every reading captured by a contextualist semantics: the result of modifying an experiential property in this way is the same as the result of saturating the experiencer argument of the predicate for the contextualist (compare e.g. (88) with (4-b)). Note that the modified denotation is experiencer-insensitive.

\begin{equation}
[\text{tasty [to Alfonse]}]^{w,x} = \lambda z.e.\text{tasty}'(w)(a)(z)
\end{equation}

Whatever semantic machinery the contextualist employs to obtain indexical, anaphoric, and bound readings of experiential predicates is therefore equally available to the relativist, and the same holds for the machinery employed to derive direct experience presuppositions. In this sense, a relativist semantics is strictly more expressive than a contextualist semantics: it allows for all the same readings where an experiential predicate composes with an experiencer, as well as additional readings on which it doesn’t (and where the value for the experiencer is therefore supplied by the intensional parameter).\(^{36}\)

What follows demonstrates that this increase in expressive power deflates the problems that afflict a contextualist semantics. §1.2.1 briefly revisits these challenges, and shows how an extensionally monadic treatment of experiential predicates resolves them.

---

\(^{35}\) Such cases of disagreement are thus ‘faultless,’ in Kölbl’s (2004) terminology, in two senses: (i) neither interlocutor assesses incorrectly for truth (86-a); and (ii) both interlocutors assess properly for truth (86-b) (and would be committing an impropriety to hold the contrary belief). The disagreement is not faultless in one sense: each interlocutor takes the other to have a false belief, and so each takes the other to be making an ‘error of taste’ in the sense of Lasersohn (2017: 210, ex. 49). Lasersohn (2009: 364; 2017: §7.6) also allows for interlocutors to take an ‘acentric stance,’ and refuse to assess experiencer-sensitive contents for truth, which if possible may serve to remove even the intuition of an error of taste: cf. Anthony (2016: §§3.3).

\(^{36}\) And so Kneer et al. (2017) and Schaffer (2011: 192-195) are mistaken to think that ‘perspectival plurality’ and bound readings of experiential predicates respectively favor a contextualist semantics. Special technical tools to capture relativist bound readings have been invoked by Lasersohn (2008: 323-326) and Zeman (2015), but these are unnecessary, since there is no technical or empirical impediment to binding modifiers using the same tools as in §1.1.
1.2.1 The contextualist’s problems redux

A relativist semantics removes the experiencer argument from experiential predicates, and allows for two sorts of uses of those predicates: unmodified uses don’t make reference to a specific experiencer in their content (83-c), while modified uses (either exocentric or with overt experiencer PPs) do. This dispels the contextualist’s problems discussed in §§1.1.1-1.1.5.

First, as to subjective attitude verbs (cf. §1.1.1), a sufficient condition on predicates being embeddable beneath *find* may be that they are experiencer-sensitive (81-b), as unmodified experiential predicates are (82-a); those occurring with overt experiencer PPs are by contrast experiencer-insensitive, and so fail to meet this condition (88), making intelligible their infelicity beneath *find*. Since experiencer-sensitivity need not be a necessary condition, this further allows *find* to have a wider range of application than just for experiential predicates. It’s also expected that *consider*-reports differ in interpretation between unmodified and modified uses of experiential predicates, since the two have different meanings: (35-a) reports that Alfonse considers licorice tasty *simpliciter*, and (35-b) and (35-c) that he considers it tasty to some specific individual.

Second, the distribution of direct experience presuppositions (cf. §1.1.2) is intelligible. Unmodified uses of experiential predicates don’t give rise to such presuppositions (cf. (40), (41)), while modified uses do (cf. (38), (39) for uses with overt experiencer PPs, and (44) for an exocentric use). The relativist captures this distinction if, as suggested for the contextualist in §1.1.2, the experiential predicate itself makes use only of the dispositional reading of ‘*tasty*’ (2-a), and the direct experience presupposition is encoded only on the experiencer PP or exocentric modifier. The denotations for *to* and *$x_ε$* (modified from (87)) are then as follows.

$$\text{(89)} \quad \text{a. } [\text{to}]^{w,x} = λy_e.λP_{s,(e,e,t)}.\lambda y : y \text{ has direct experience of } x \text{ of the kind relevant to } P \text{ in } w.P(w)(y)(x)$$

$$\text{b. } [x_ε]^{w,x,g} = λP_{a,(s,(e,e,t))}.\lambda y_e : g(ε) \text{ has direct experience of } x \text{ of the kind relevant to } P \text{ in } w.P(g(w)(g(ε))(y)$$

Refusing to make this move, and having ‘*tasty*’ encode direct experience presuppositions as in (8), wrongly predicts that such presuppositions always arise according to the assessor with respect to himself when autocentrically assessing the truth of experiencer-sensitive relativist-propositions.\(^{37}\)

\(^{37}\)It further wrongly predicts spurious addressee-directed presuppositions: an unmodified utterance of *Licorice is tasty*, as heard by its addressee, ought to be extensionally equivalent on such an account to *Licorice is tasty to you*. That this is wrong is shown by the fact that the former cannot be heard by the addressee as encoding a presupposition that the addressee has tasted licorice, unlike the latter, which must be so heard.

(i) A: Licorice is tasty to you.
B: Wait a minute – I’ve never tasted licorice.

(ii) A: Licorice is tasty.
B: #Wait a minute – I’ve never tasted licorice.
This further allows acquaintance inferences (cf. §1.1.5) in principle to be captured as inferences independent of direct experience presuppositions, since no direct experience presuppositions are predicted for unmodified uses of experiential predicates, and given their distinct semantics, some distinct reason may be found (again, perhaps ala Ninan 2014) for the appearance of the non-presuppositional implication.

Third, the fact that the relativist allows for relativist-propositions of the form that licorice is tasty (simpliciter) to be denoted by embedded clauses makes factives (cf. §1.1.3) and reports of agreement and disagreement (cf. §1.1.4) easy to treat. The relativist need only say that what Alfonse realizes according to (46-a) is that licorice is tasty simpliciter, and likewise for what Alfonse and Bethany agree on in (63) and disagree over in (69).

For this to work, the relativist needs a notion of belief in experiencer-sensitive relativist propositions simpliciter. This is achievable if, following Stephenson (2007a: 496, ex. 28), the relativist takes belief to be inherently autocentric. Doxastic alternatives can then be recast as world-experiencer pairs (90-a), and belief in a relativist-proposition can be taken to mean that all an agent’s doxastic alternatives verify it (90-b).

\[(90) \quad \text{a. } \text{Dox}_{w,x} := \{(w', y) : \text{it is compatible with } x\text{'s beliefs at } w \text{ that } x \text{ is } y \text{ in } w'\} \]
\[\text{b. } [\text{think}]_{w,x}^{\text{w},\text{x}} = \lambda \phi_{s,\text{et}} \cdot \lambda y_e \cdot \forall (w', z) \in \text{Dox}_{w,y}[\phi(w')(z)]\]

To believe a relativist-proposition \(\phi\) is thus just to take it to be properly assessed as true by oneself de se, viz. true at the world of thought relative to the thinker. 38 Denotations for realize, agree, and disagree (modified from (47-b), (58), and (67)) that get the right results by importing this notion of belief are then unproblematic.

\[(91) \quad \text{a. } [\text{realize}]_{w,x}^{\text{w},\text{x}} = \lambda \phi_{s,\text{et}} : \phi(w)(x) \cdot \lambda y_e \cdot \forall (w', z) \in \text{Dox}_{w,y}[\phi(w')(z)] \]
\[\text{b. } [\text{agree}]_{w,x}^{\text{w},\text{x}} = \lambda y_e \cdot \lambda \phi_{s,\text{et}} \cdot \lambda z_e \cdot \forall (w', v) \in \text{Dox}_{w,y}, \text{Dox}_{w,z}[\phi(w')(v)] \]
\[\text{c. } [\text{disagree}]_{w,x}^{\text{w},\text{x}} = \lambda y_e \cdot \lambda \phi_{s,\text{et}} \cdot \lambda z_e \cdot \forall (w', v) \in \text{Dox}_{w,y}[\phi(w')(v)] \land \forall (w'', u) \in \text{Dox}_{w,z}[\neg\phi(w'')(u)] \]

In assenting the relativist-proposition that licorice is tasty (simpliciter), a speaker thus accepts that this relativist-proposition is true as assessed autocentrically, and so must commit to liking, or being disposed to like, the taste of licorice. The reader can confirm that this allows speakers to track mutual belief or lack thereof in the same proposition, in terms of mutual (dispositions to) experience or lack thereof, in a way appropriate for the cases in §1.1.3 and §1.1.4.

38A treatment of belief as in Lasersohn (2005: §6.2), which takes doxastic verbs effectively to have an additional argument slot for an experiencer, recapitulates all of the contextualist’s problems with respect to doxastic agreement and disagreement, since it reduces all belief in experiencer-sensitive relativist-propositions to de re belief about the experiential reactions of experiencers. To believe that licorice is tasty autocentrically is then just to have a de re belief about one’s own experiences, and these sorts of beliefs do not track agreement and disagreement based on converging and diverging experiences in the right way, since the single relativist-proposition that licorice is tasty can’t be believed or disbelieved simpliciter (though oddly, it can be asserted simpliciter). Lasersohn (2009: 367; 2017: §8.6) comes to recognize the need for the relativist to adopt a Stephersonian de se notion of belief simpliciter, but never fully abandons this other treatment (Lasersohn 2017: 156, ex. 188).
1.3 Bare semantics: no experiencer

Granted that the elimination of the experiencer argument is empirically advantageous, the question remains what advantage there is in holding onto the experiencer as an intensional parameter. The experiencer parameter serves two functions: it allows for experiencer phrases to work as intensional operators in the compositional semantics (87), and it allows speakers to assess the truth of experiencer-sensitive relativist-propositions autocentrically (86-b).

But this parameter is necessary for neither of these functions, and so while it is empirically harmless, it can be abandoned. §1.3.1 shows that experiential intensional operators can be treated without the parameter, and §1.3.2 shows that it is unneeded for autocentric assessment of traditional propositions. Given this, there is no reason to reference an experiencer in the semantics of experiential predicates at any level of description, and so the rest of this work adopts a ‘bare’ semantics for these predicates. A preliminary denotation for tasty is as follows.39

\[
[tasty]^w = \lambda x.\text{tasty}'(w)(x)
\]

‘tasty’ is distinct from its dyadic counterpart ‘tasty’,” used in §1.1 and §1.2. Chapter 2 elaborates on (92), and provides a richer compositional semantics for experiential predicates. Until then, the entry can be read ‘disquotationally:’ tasty’(w)(x) iff x is tasty at w.

The result of the following is that the difference between a relativist and bare semantics is trivial.40 A bare semantics inherits the virtues of a relativist semantics, in virtue of not being committed to an experiencer argument, and in virtue of distinguishing between modified and unmodified uses of experiential predicates (cf. §1.2.1). It thus captures all of the data so far considered, and in a simpler way, since it has no need to complicate the treatment of attitudes by making them inherently de se (cf. (90)).

The relativist’s experiencer parameter is a shorthand for dealing with a cluster of semantic-pragmatic phenomena surrounding experiential predicates. The rest of this work explains these phenomena in more fundamental terms, dispensing with the need for this shorthand. The behavior of experiencer phrases is cast in terms of the experiencer role in events (cf. §[]). Autocentric assessment is seen to be an epiphenomenon of experiential semantics (cf. Chapter 2) interacting with direct evidentiality (cf. §[]).

Finally, the experiencer parameter allows for a formalization of the notion that there is in some sense ‘no fact of the matter’ (cf. (85)-(86) ff.) regarding the truth of certain propositions, which the use of experiential predicates allow speakers to express. This is ‘lack of a matter of fact’ ultimately a consequence of the metasemantics of experiential predicates, 39This position is rare in the literature. Cf. Collins (2013: 51): “The truth or falsity of tokens of the sentences [...] depends upon a relevant experiencer or judge [...] To the best of my knowledge, so much is not denied by anyone.” But cf. Schafer (2011), Clapp (2015), Hirvonen (2016), and Wyatt (2018), which take some sort of bare semantics seriously, and possibly Iacona (2008).

40Cf. Cappelen & Hawthorne (2009: 137): “Suppose we are simple-minded realists about predicates of personal taste and are presented with a supposed card-carrying relativist [...] There is quite a natural translation algorithm available to us [...] it will be natural to interpret the relativist’s talk of some proposition being true at a standard of taste index as expressing the claim that the proposition is true by such and such standards [...] Meanwhile, it will be very natural to interpret the relativist’s disquotational truth predicates as expressing the very properties that the realist expresses by ‘true’ and ‘false.’ According to this proposed translation manual, the so-called relativist and realist do not differ at all!”
to be addressed in §[].

1.3.1 Experiential intensional operators

Lasersohn (2005: 656, 2017: 34-35) worries that a bare semantics can’t compose experiencer PPs with experiential predicates, since without an experiential standard somewhere in the semantics, these PPs can’t provide a value for that standard (as on a semantics referencing an experiencer: cf. (4-a), (87-a)).

But intensional operators can anchor properties to experiencers by shifting the world parameter. A related practice is ubiquitous in the adoption of Hintikka (1969)’s approach to propositional attitudes as encoding a set of worlds anchored to an agent, viz. those worlds compatible with the agent’s attitudes: e.g., a standard denotation for think (93-b) relativizes the intension of the verb’s complement clause to the agent’s set of doxastic alternatives, at which the intension is evaluated for truth.

\( (93) \)
\[
\text{a. } \text{Dox}_{w,x} := \{ w' : w' \text{ is compatible with } x\text{'s beliefs at } w \} \\
\text{b. } [\text{think}]^w = \lambda \phi_{st}. \lambda x_e. \forall w' \in \text{Dox}_{w,x}[\phi(w')] 
\]

A notion of ‘experiential alternatives’ can be defined on analogy with (93-a).

\( (94) \)
\[
\text{Exp}_{w,x} := \{ w' : w' \text{ is compatible with } x\text{'s experiences in } w \}
\]

The denotation of to is then as in (95-a):\(^{41}\) it composes with an experiencer (individual) to yield a property modifier, which relativizes a property’s intension to the experiencer’s set of experiential alternatives. An analogous treatment could be given of exocentric modifiers, and direct experience presuppositions could be encoded on the modifier as in [].

The result of relativizing tasty to Alfonse is as in (95-b): this denotes a property true of individuals that are tasty in all of Alfonse’s experiential alternatives, i.e. tasty according to Alfonse’s experiences.

\( (95) \)
\[
\text{a. } [\text{to}]^w = \lambda x_e. \lambda P_{st}. \lambda y_e. \forall w' \in \text{Exp}_{w,x}[P(w')(y)] \\
\text{b. } [\text{tasty to Alfonse}]^w = \lambda y_e. \forall w' \in \text{Exp}_{w,a}[\text{tasty}(w')(x)] 
\]

An explanation is needed of what an experiential alternative is, along with a demonstration of how the notion can be employed, in combination with a semantics of experiential predicates, to yield the correct distribution of experiencer PPs and the right compositional result: these are provided in §[], where the denotation of to is also refined.

1.3.2 Autocentric assessment

Using experiential alternatives (cf. §1.3.1), a bare approach can implement autocentric truth assessment, e.g. by holding to the norms in (96). These correspond to their relativist counterparts (cf. (86); again mutatis mutandis for falsity).

\( (96) \)
\[
\text{a. } \phi \text{ is correctly assessed as true in } c' \text{ iff } \phi(w_{c'}) \\
\text{and is incorrectly assessed as true in } c' \text{ otherwise).}
\]

\(^{41}\)This answers Lasersohn’s (2017: 35, ex. 27) challenge to produce such a denotation.
b. \( \phi \) is properly assessed as true in \( c' \) iff \( \forall w' \in \text{Exp}_{w', a', c} [\phi(w')] \) (and is improperly assessed as true in \( c' \) otherwise).

(96-a) is the non-relativist notion of correct truth assessment (cf. (84)). (96-b) says that proper truth assessment tracks truth at the assessor’s experiential alternatives at the world of assessment.

Let the constraints in (97)-(98) on experiential alternatives hold, where \( \phi' \) is the ‘relativist-proposition counterpart’ of the proposition \( \phi \).

\[(97) \quad \phi \text{ is experiential at } w \text{ iff } \phi' \text{ is experiencer-sensitive at } w \text{ (cf. (81-a))}
\]

(98) a. If \( \phi \) is non-experiential at \( w \),

(i) \( \phi(w) \) iff \( \forall x [\forall w' \in \text{Exp}_{w,x} [\phi(w')]] \).

(ii) \( \neg \phi(w) \) iff \( \exists x [\forall w' \in \text{Exp}_{w,x} [\neg \phi(w')]] \).

b. If \( \phi \) is experiential at \( w \), \( \forall w' \in \text{Exp}_{w,x} [\phi(w')] \) iff \( \phi'(w)(x) \).

(98-a) says that non-experiential propositions are experiential-alternative-insensitive, in the same way that their relativist-proposition counterparts are experiencer-insensitive. Where \( \phi \) is non-experiential at \( w \), principles (96-a) and (96-b) converge: \( \phi \) is correctly assessed as true at \( w \) just in case it’s properly assessed as true at \( w \), and correct and proper truth assessment converge for all individuals at \( w \). This mirrors the relativist situation in §1.2.

(98-b) says that experiential propositions are experiential-alternative-sensitive in the same way that their relativist-proposition counterparts are experiencer-sensitive. E.g., the relativist-proposition counterpart of \( \lambda w_s . \text{tasty}''(w)(y) \) (that \( y \) is tasty) is \( \lambda w_s . \lambda x_e . \text{tasty}''''(w)(x)(y) \). The former is true at every member of \( \text{Exp}_{w,x} \) just in case the latter is true at \( w \) and \( x \): \( \forall w' \in \text{Exp}_{w,x} [\text{tasty}'''(w')(y)] \) iff \( \text{tasty}''''(w)(x)(y) \).

Experiential propositions are properly assessed as true just in case they’re true according to the assessor’s experiences at the world of assessment, where this notion tracks exactly the function of the relativist’s experiencer parameter. Where \( \phi \) is experiential at \( w \), proper truth assessment varies between individuals at \( w \) as their experiences relevantly diverge, again mirroring the relativist situation in §1.2.

So a bare treatment can distinguish between correct and proper truth assessment, and have them pattern together and apart depending on the proposition, in the same way that a relativist treatment does. The norms in (96) pragmatically compel speakers to assess propositions as true or false, and so to agree or disagree about them, in the same circumstances as do their relativist counterparts, with respect to the relevant relativist-proposition

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\(^{42}\)\( \phi' \) (an object of type \( \langle s, \langle e, t \rangle \rangle \)) is the relativist-proposition counterpart of \( \phi \) (an object of type \( \langle s, t \rangle \)) iff there is an expression \( \rho = \gamma \lambda w_s . \lambda x_e . \psi \gamma \) in the metalanguage – \( \psi \) an expression in the metalanguage of type \( t \) – that denotes \( \phi' \), and if \( \rho \) is altered such that all instances of type-\( \langle e, t \rangle \) expressions \( \gamma \alpha''(w)(x) \gamma \) in \( \psi \) (\( \gamma \alpha' \) a variable over strings), where ‘\( w \)’ and ‘\( x \)’ are bound by the leftmost occurrences in \( \rho \) of ‘\( \lambda w_s ' \) and ‘\( \lambda x_e ' \) respectively, are replaced with ‘\( \gamma \alpha'(w) \gamma \)’, and the leftmost occurrence ‘\( \lambda x_e ' \) in \( \rho \) is removed, the result is an expression that denotes \( \phi \). The reader can confirm that this procedure yields the correlation of the two translations of that \( y \) is tasty to follow.

\(^{43}\)Cf. Köhler’s (2004: 59-60) comments on mitigated realism, Schafer’s (2011: 272-275) appeal to second-order norms on belief formation, and his distinction between being mistaken and being at fault, and Hirvenen’s (2016: 60) distinction between an assertion’s being true and justified.
counterparts.\textsuperscript{44}

A difference between the two views is that (96-a) entails that where $\phi$ is experiential at $w$, it is correctly or incorrectly assessed as true at $w$, depending on whether $\phi(w)$; a relativist treatment denies the correlate of this (cf. (86) ff.). This might cause worry that a bare view entails that individuals have experiential properties at worlds as a 'matter of fact' in some objectionable sense. As mentioned in §1.3 above, this worry is dispelled in §[].

\textsuperscript{44}This defuses Lasersohn's (2005: 655) worry that a bare semantics (his ‘Option 3c;’ cf. Lasersohn 2017: 32-34) can’t account for speakers’ justification in asserting, without uncertainty and based on their own experiences, that experiential properties hold of individuals: speakers can depend on these experiences for propriety of assessment and hence assertion regardless of the adicity of the metalanguage predicate.