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# *Experiencer Phrases, Predicates of Personal Taste and Relativism: On Cappelen and Hawthorne's Critique of the Operator Argument*

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*In the debate between relativism and contextualism about various expressions, the Operator Argument, initially proposed by Kaplan (1989), has been taken to support relativism. However, one widespread reaction against the argument has taken the form of arguing against one assumption made by Kaplan: namely, that certain natural language expressions are best treated as sentential operators. Focusing on the only extant version of the Operator Argument proposed in connection to predicates of personal taste such as "tasty" and experiencer phrases such as "for Anna" (that of Kölbel (2009)), in this paper I investigate whether the reasons offered by Cappelen and Hawthorne (2009) against various assumptions of the argument failing in the case of modal, temporal, locational and precisional expressions transfer to the case of experiencer phrases to undercut support for relativism about predicates of personal taste. My aim is to show that they don't. Thus, I first show that their considerations against experiencer phrases such as "for Anna" being sentential operators are not decisive. Second, I show that even if granting that such experiencer phrases are not sentential operators, a suitably modified version of the Operator Argument can be defended from the objections they raise.*

**Keywords**: The Operator Argument, predicates of personal taste, experiencer phrases, contextualism, relativism.

In "Demonstratives", David Kaplan offers the following argument for the introduction of unorthodox parameters in the circumstances of evaluation (with particular focus on time):

> If we built the time of evaluation into the contents (thus removing time from the circumstances leaving only, say, a possible world history, and mak-

> ing contents specific as to time), it would make no sense to have temporal operators. To put the point another way, if what is said is thought of as incorporating reference to a specific time, or state of the world, or whatever, it is otiose to ask whether what is said would have been true at another time, in another state of the world, or whatever. Temporal operators applied to eternal sentences (those whose contents incorporate a specific time of evaluation) are redundant. Any intensional operators applied to perfect sentences (those whose contents incorporate specific values for all features of circumstances) are redundant. (Kaplan 1989: 503)[1]

In recent debates between relativism and contextualism about a variety of expressions, this type of argument (known as "the Operator Argument") has been taken to support relativism about those expressions.[2] "Contextualism" and "relativism" are loaded terms, so it would be useful to clarify my usage here. According to a widespread view originating in Kaplan (1989), context plays two roles in establishing the truth value of utterances of sentences: it contributes elements to the content of those utterances and it provides values for the parameters in the circumstances of evaluation with respect to which the utterances are evaluated. I will call these two roles, following terminology introduced by MacFarlane (2009), the *content-determinative* role of context and the *circumstance-determinative* role of context, respectively. Now, although context has this double role, when it comes to one specific parameter of context that has a bearing on the truth value of an utterance of a sentence that doesn't contain indexicals or other obvious context-sensitive expressions, as well as modifiers that make the parameter explicit, context plays only one of these two roles.[3] Thus, I will call "contextualism" about a certain type of expression any view according to which, in connection to a certain parameter of context that has a bearing on the truth value of an utterance of a sentence containing tokens of that expression, context has a content-determinative role, and "relativism" about a certain type of expression any view according to which, in connection to a certain parameter of context that has a bearing on the truth value of an utterance of a sentence containing tokens of that expression, context has a circumstance-determinative role.[4]

[1] A similar kind of argument could be found in Lewis (1980), based on the idea of "shiftable" features of context.

[2] See, among others, Stanley (2005), Lasersohn (2005, 2008), Kölbel (2009). Stanley claims that the Operator Argument is the only argument in favor of relativism. This claim has found little support among relativists themselves.

[3] This idea, accepted by many semanticists, has been encapsulated in the following principle:

> *Distribution*: The determinants of truth-value distribute over the two basic components truth-evaluation involves: content and circumstance. That is, a determinant of truth-value (…) is either given as an ingredient of content or as an aspect of the circumstance of evaluation. (Recanati, 2007: 34).

[4] It is obvious that this way of carving the logical space will lump together positions that are very different. A view like Stanley's (2000), for example, will thus count as contextualist in the sense defined, as well as a view like Recanati's (2002, 2004)—views that otherwise are at odds with respect to the logical form of

Recently, the type of argument found in the quote above has been under severe attack. The focus of the attack has been a certain assumption that the proponents of the argument have made. In a nutshell, the argument proceeds from the existence of natural language expressions that are interpreted as sentential operators that shift corresponding parameters in the circumstances of evaluation to the need to introduce those corresponding parameters in the circumstances of evaluation on pain of making the operators redundant. Since the expressions that are interpreted as sentential operators are clearly not redundant, the conclusion seems to follow. But this presupposes that the natural language expressions in question *are* best interpreted as sentential operators that shift corresponding parameters in the circumstances of evaluation. This is precisely what opponents of the argument, such as King (2003, 2007), Cappelen and Hawthorne (2009) or Glanzberg (2011) deny.[5]

the target sentences, the mechanisms involved in the provision of elements into the content, etc. On the other hand, both a view such as MacFarlane's (2003, 2005, 2011, forthcoming) and more "orthodox" views such as that defended by Kölbel (2004)—views that differ in their claims about absoluteness of utterance truth, for example—count as relativist according to my definition.

One might be wary about putting the two relativist views mentioned under the same label. As widely known, MacFarlane (2009) has insisted that postulating certain parameters in the circumstances of evaluation is not sufficient to make a view relativist in his sense of the term. I don't want to quibble about terminology here, but let me note that as far as it is part of MacFarlane's view that those parameters are part of the circumstances, his view is also relativist in the sense I'm using the term. That is consistent with admitting that MacFarlane's view could be developed in a different framework than Kaplan's, one which eschews circumstances of evaluation (and propositions) altogether. But, as it happens, MacFarlane *does* use the Kaplanian framework and *does* think that context has a circumstance-determinative role for the relevant expressions. If this is not reason enough to include MacFarlane's view under "relativism" in my sense, I'm content with limiting myself to including only more moderate versions like Kölbel's (2004), Kompa's (2005) or Brogaard's (2008)—views that fall under MacFarlane's (2009) label "non-indexical contextualism".

[5] Another challenge to the argument concerns its capacity to support relativism. It has been argued by authors such as Ninan (2010) and Lopez de Sa (2012) that the Operator Argument, even if sound, cannot support relativism because the former is about compositional semantic values (entities postulated by the semantic theory to account for the compositionality of natural language), whereas the latter is about the contents of assertions and beliefs. In other words, even if the Operator Argument's conclusion is right, this is not a guarantee that the contents of assertions and beliefs are relative to the unorthodox parameters introduced to account for compositionality.

Although a more thorough discussion is needed here, let me say a few words to address this challenge. First, although it's reasonable to take relativism to be about the contents of assertions and beliefs, and not about compositional semantic values, this is not always made explicit by the participants in the debate between contextualism and relativism, and so it's not always crystal clear what are the roles the contents postulated by relativists play in a more comprehensive semantic theory. Second, even assuming that relativism is a thesis about the contents of assertions and beliefs, it's certainly possible that there are versions of the Operator Argument that target precisely such content. This seems indeed to be the case with Kaplan—

In what follows I will be concerned with whether this challenge to the Operator Argument applies to experiencer phrases (expressions such as "for Anna") in order to undercut support for relativism about predicates of personal taste. The latter are expressions like "tasty", "disgusting", "fun", "sexy", "cool" etc; as their name suggests, these predicates convey information about how some aspects of the world are experienced by a certain person, commonly referred to as the subject, or the judge, or the experiencer. According to a certain metaphysical picture (one that I will presuppose here), such predicates stand for certain properties whose existence depends on there being such a subject. Call this kind of metaphysical picture "subjectivist". Predicates of personal taste could thus be said to belong to what we could call "subjective predicates", the main feature of which being that of standing for the kind of properties described above. I'm not aiming here to give a full characterization of predicates of personal taste, but what I take to be crucial for such predicates—the feature that gives them their special character—is that they are, from a semantic point of view, essentially connected to a subject, in the sense that utterances of sentences in which these appear could be evaluated for truth only if somehow a subject has been provided. Both contextualism and relativism about predicates of personal taste, in the sense of these terms given above, substantiate this need for the provision of a subject, albeit the way the subject is provided according to each view is different.

The Operator Argument hasn't been discussed much in connection to experiencer phrases and predicates of personal taste. My aim in this paper is to investigate whether the considerations that have been brought against the Operator Argument involving other expressions—modal, temporal, locational and precisional—by Cappelen and Hawthorne (2009) also apply to experiencer phrases like "for Anna". I will attempt to show that this is not the case. Thus, after laying out the argument in the form favored by Cappelen and Hawthorne in section 1, I will discuss their arguments against each of the assumptions that, according to them, the argument rests on. In section 2 I will consider their arguments against experiencer phrases exhibiting *Sententiality* (where an expression exhibits *Sententiality* if the result of its combining with a sentence is also a sentence) and argue that they are not convincing. However, for the reminder of the paper I will grant that

after all, in the quote above his argument relies on considering whether "if *what is said* is thought of as incorporating reference to a specific time, or state of the world, or whatever it, is otiose to ask whether *what is said* would have been true at another time, in another state of the world, or whatever" (my emphasis). Finally, and again supposing that relativism is a thesis about the contents of assertions and beliefs, there is another relativist position in the vicinity which is about compositional semantic values. The thesis that the latter are relativistic contents is by no means trivial. So, while I acknowledge the points made by Ninan and Lopez de Sa, I conclude that, prima facie at least, the Operator Argument can be used to support relativism—understood either as a thesis about the contents of assertions and beliefs or as a thesis about compositional semantic values.

*Sententiality* fails for such expressions, only to show that a different version of the Operator Argument that doesn't rely on *Sententiality* can be constructed. I provide such a version in section 4, but after putting forward a view of experiencer phrases that doesn't presuppose *Sententiality*. In the final section I defend the argument introduced in section 4 from objections similar to those raised by Cappelen and Hawthorne in connection to modal, temporal, locational and precisional expressions. I end with some remarks about the plausibility of the view put forward.

## 1. *Regimenting the argument*

The quote from Kaplan above gives us an intuitive grasp of how the Operator Argument works and what it is supposed to prove; however, a more formal, and more general rendering of the argument will be useful. One such more general form of the argument has been provided by Cappelen and Hawthorne themselves. They offer an argument-schema whose instances yield particular versions of the Operator Arguments for particular natural language expressions. With E standing for natural language expressions exhibiting *Sententiality* (where an expression E exhibits *Sententiality* if the result of E's combination with a sentence is another sentence), S for sentences and M for parameters of the context that have a bearing on the truth values of utterances of S, the argument in its general form could be put as follows:

*L1.* *Parameter Dependence*: S is evaluable for truth only once a value along parameter M is specified.
*L2.* *Uniformity*: S is of the same semantic type when it occurs alone or when it combines with E.
*L3.* *Vacuity*: E is semantically vacuous (i.e., it does not affect truth value) when it combines with a sentence that semantically supplies a value for M.
*L4.* E is not redundant when it combines with S.
*L5.* By *Vacuity* and (*L4*), S does not supply a value for M when it combines with E.
*L6.* By *Uniformity* and (*L5*), S does not supply a value for M when it occurs alone.
*L7.* By *Parameter Dependence* and (*L6*), S cannot be evaluated for truth. (Cappelen & Hawthorne 2009: 71)

The kind of expressions that will be relevant here are experiencer phrases like "for Anna", which when applied to a predicate of personal taste have the role of specifying the subject according to which the predicate applies or doesn't apply to a certain object. To illustrate, in sentence

(1) Whale meat is tasty for Anna,

which will be my target sentence in what follows, "tasty" is the predicate of personal taste, while the experiencer phrase "for Anna" specifies the subject according to which avocado is tasty (in this case, Anna).

Thus, replacing E with "for Anna", S with "Whale meat is tasty" and M with the parameter of the context providing the value for the subject in the argument schema above,[6] we get the following particular instance of the Operator Argument:

*L1'*. *Parameter Dependence*: "Whale meat is tasty" is evaluable for truth only once a value along the subject parameter is specified.
*L2'*. *Uniformity*: "Whale meat is tasty" is of the same semantic type when it occurs alone or when it combines with "for Anna".
*L3'*. *Vacuity*: "for Anna" is semantically vacuous (i.e., it does not affect truth value) when it combines with a sentence that semantically supplies a value for the subject parameter.
*L4'*. "For Anna" is not redundant when it combines with "Whale meat is tasty".
*L5'*. By *Vacuity* and (*L4'*), "Whale meat is tasty" does not supply a value for the subject parameter when it combines with "for Anna".
*L6'*. By *Uniformity* and (*L5'*), "Whale meat is tasty" does not supply a value for the subject parameter when it occurs alone.
*L7'*. By *Parameter Dependence* and (*L6'*), "Whale meat is tasty" cannot be evaluated for truth.

Cappelen and Hawthorne (2009) have criticized a number of instances of the Operator Argument involving modal, temporal, locational and precisional expressions. They summarize their main objections as follows:

- *Sententiality* is unmotivated for many of the standard temporal, locational, modal, and precisional constructions that figure in these arguments, the *Uniformity* premiss even more so.
- For temporal constructions, *Uniformity* is particularly questionable (and, in so far as one is a presentist, *Parameter Dependence* is questionable as well).
- For precisional and modal terms, *Parameter Dependence* is particularly questionable. (Cappelen and Hawthorne 2009: 73).

The interesting question for me here is whether any if these claims apply to expressions like "for Anna". I will start with *Sententiality*.

## 2. *Against* Sententiality

In relativist literature about predicates of personal taste, the view that experiencer phrases like "for Anna" are intensional sentential operators has been proposed (albeit not fully endorsed) by Kölbel (2009). Here is how Kölbel explains the view:

[6] What that parameter is exactly is a mater of dispute between relativists themselves. Thus, MacFarlane (forthcoming) prefers standards of taste ("gustatory standards"), Lasersohn (2005) judges and Kölbel (2004) perspectives. These differences will not matter in what follows, so I will continue to speak about the subject parameter throughout the paper.

> In the relativist semantics for taste predicates, we can introduce a class of operators that are analogous to Kaplan's modal and temporal operators in that they shift the standard of taste parameter in the circumstance of evaluation, just as modal and tense operators shift the world and time parameter respectively. English seems to contain a construction that might intuitively be interpreted in this way, namely the "For *S*, *p*"-construction, as in "For Anna, whale meat is tasty", or "Whale meat is tasty for Anna". We can start with an operator-forming operator FOR on singular terms. A standard-shifting operator FOR *t* is formed by prefixing the expression FOR to a singular term *t* referring to a person. Such an operator can in turn be prefixed to a sentence *p*, thus yielding a sentence FOR *t*, *p*. Here are some syntactic and semantic instructions we might use to introduce FOR into a language of the sort we are considering:
>
> (S1) For all sentences $\varphi$ and all singular terms $\alpha$, FOR $\alpha$, $\varphi$ is a sentence.
>
> (S2) For all $\varphi$, $\alpha$, $w$, $s$ and $a$: if $\varphi$ is a sentence and $\alpha$ is a personal name referring to $a$, $w$ is a possible world, and $s$ is a standard:
>
> FOR $\alpha$, $\varphi$ is true in a circumstance $<w, s>$ iff $\varphi$ is true in $<w, s(a)>$ (where
>
> $s(a)$ is $a$'s standard of taste). (2009: 384)

Cappelen and Hawthorne (2009) criticize both Kölbel's view about expressions like "for Anna" and the claim that *Sententiality* holds for other expressions that have figured in various instances of the Operator Argument. Their second criticism is important in this context because what they say about those expressions might apply, *mutatis mutandis*, to experiencer phrases too. To start with that criticism, we have seen that they think that *Sententiality* is unmotivated for modal, temporal, locational and precisional expressions. About temporal and locational expressions in particular, they say that "[o]ne very natural—and utterly standard—account of [their] syntactic life is that [they are] adverb[s] that combine with a verb phrase to compose a verb phrase" and that "[i]t is not merely inconvenient to treat those expressions as sentential—such a treatment gives a deeply incorrect picture of their syntactic life" (Cappelen and Hawthorne 2009: 74).

However, despite making such strong claims, Cappelen and Hawthorne don't actually present *arguments* that the expressions in question are adverbs rather than sentential operators. We are told that the view that temporal and locational expressions are adverbs that combine with verbs to form verb phrases is "very natural—and utterly standard", and so it is implied that any view departing from it is not standard. But this is hardly a substantive criticism. Since a non-standard view about the expressions at stake is certainly possible, whether it is the right one or not should be established by weighting its merits and drawbacks against those of competitor views. This is the more

so as adverbs are a tricky category and things are not as settled as Cappelen and Hawthorne would want us to think. The morphological category "adverb" comprises both expressions that combine with verbs to form verb phrases and expressions that combine with sentences to form other sentences. The interesting question is, of course, whether the expressions at stake belong to one or the other category, and this question should be settled by careful argumentation. In any case, and more importantly, their proposal is implausible in the case of experiencer phrases, since they are not adverbs.[7]

To be fair to Cappelen and Hawthorne, they do appeal to some authors that are usually taken to have shown that *Sententiality* for temporal and locational expressions is not a well-founded idea. The author that Cappelen and Hawthorne rely on the most is Jeffrey King. Drawing on previous work in linguistics, King's (2003; 2007, chapter 6) main aim is to show that an operator treatment of temporal and locational expressions is problematic, while a quantificational treatment is less so. In the case of temporal expressions and tenses, the problems are due to the existence of a series of phenomena such as temporal anaphora, deictic uses of tense, interaction between tenses and temporal adverbs, "sequence of tense" phenomena, etc. that apparently cannot be handled by the operator approach as straightforwardly as the quantificational approach. Thus, summarizing his objections, King writes: "Treating tenses and temporal expressions as involving quantification over times allows for a simpler, more elegant, less ad hoc treatment" and for "a more plausible account of the relation between the surface structures of English sentences and the syntactic representation of those sentences" (King 2007: 187). But as it is remarked in Marti and Zeman (2010), these objections have an instrumental flavor rather than being of a more substantial sort. As King himself acknowledges, an operator treatment of temporal expressions and tenses *is* possible.[8] In any case, no similar problems seem to arise with experiencer phrases, so it looks like that the considerations that King brings against *Sententiality* for temporal expressions and tenses don't transfer to that domain.

Moreover, when it comes to the arguments King gives against treating locational expressions as sentential, it turns out that one such argument actually supports the hypothesis that experiencer phrases exhibit *Sententiality*. King argues against treating locational expressions as sentential by showing that they behave unlike modal expressions (the standard example of sentential operators), in that the former, but not the latter, can figure in argument position in sentences. To see this, contrast (2) and (3) with (4) and (5):

(2) Somewhere is prettier than here.
(3) Annie resides somewhere.

[7] They could, however, be seen as adjuncts of predicates of personal taste. This is the view I will present in section 3.

[8] For a recent proposal to handle the problematic phenomena mentioned within a sentential operator treatment, see Brogaard (2012).

(4) *Necessarily is beautiful.
(5) *Chris completed necessarily. (King 2007:191).

The latter two are clearly infelicitous. But note now that by applying this test to experiencer phrases we get the result that they side with modal expressions, not with locational ones. Consider:

(6) *For Anna is beautiful.
(7) *Chris completed for Anna;

they are both as infelicitous as the sentences containing the modal expressions above. Thus, instead of counting against *Sententiality* holding for experiencer phrases, King's test actually shows that the assumption holds.[9]

The more concrete objection Cappelen and Hawthorne (2009) raise against Kölbel's treatment of "for Anna" is more interesting and more relevant for the present discussion. They claim to have found a counterexample to Kölbel's view: in a setting in which "something is tasty for Anna, while other things are dignified for Anna" (Cappelen and Hawthorne 2009: 75, footnote 10), there is a reading of

(8) Maria ate something that was tasty for Anna in a dignified way,

according to which "tasty" is related to Anna, but "dignified" is not. Such a reading creates trouble for Kölbel: if "for Anna" would exhibit *Sententiality*, then both "tasty" and "dignified" would need to be related to Anna. But, from the way the case was designed, they are *not* both related to Anna. The operator, Cappelen and Hawthorne say, is "insufficiently selective". The objection thus is that if "for Anna" is a sentential operator, the reading of (8) in the setting considered is unavailable. But it should be. *Sententiality* for experiencer phrases yields bad results.

However, I don't find this objection very powerful, as it stands. First, I don't think the example they use to make the point that *Sententiality* renders experiencer phrases insufficiently selective is the best one. Cappelen and Hawthorne seem to presuppose that "dignified" is a predicate of personal taste of the same kind as "tasty". But this, if true, is not obviously so. At least intuitively, the two predicates seem to belong to different categories, and although the difference is not so easy to pinpoint, "dignified" does seem to have a more moral ring to it than "tasty". If the two predicates belong to different kinds, the relativist has two options that would both render the example ineffective against her view: 1) refuse to give "dignified" a relativistic treatment; 2) give "dignified" a relativistic treatment, but connect it with a different parameter than that with which "tasty" is connected (say, a moral or dignity standard).[10] In both cases, it is not true that "for Anna" is in-

[9] See, however, Schaffer (2012) for a claim that King's test is inaccurate.

[10] Perhaps Cappelen and Hawthorne implicitly think that in a relativist framework all subjective predicates should be related to a unique parameter in the circumstances of evaluation (a subject, a judge or whatever). But that would be a

sufficiently selective: since there is just one predicate of personal taste in the sentence, and since "for Anna" tracks only such predicates, there is nothing to be selective about.

However, there is an easy way to make their objection more powerful—namely, by using only predicates of personal taste. It is hard to deny that in

(9) Maria ate something that was tasty for Anna in a funny way,

both "tasty" and "funny" are predicates of personal taste. In a setting similar to the one Cappelen and Hawthorne imagine, there should be a reading in which "tasty" is related to Anna, but "funny" is not. Were "for Anna" to exhibit *Sententiality*, this reading would be unavailable in a case in which it should be.

But although (9) is dialectically better than (8), the charge of "for Anna" being insufficiently selective in examples like (9) is unfounded. The reason is that there are several ways to specify the logical form of sentences like (9) which yield the result that "for Anna" is sentential. Here is one such way: following Lihoreau (2012), one could treat sentences like (9) by appeal to the Davidsonian idea that verbs are predicates of events—an idea that has been developed into the framework currently known as event semantics. Slightly modifying Lihoreau's analysis[11] by introducing thematic roles[12] and plugging in Kölbel's FOR operator, (9) could be represented as

(10) $\exists e\, \exists x\, \exists t$ (Eating ($e$) & AGENT ($e$, Maria) & THEME ($e$, $x$) & MANNER ($e$, funny) & TIME ($e$, $t < t_u$) & FOR (Anna, $x$ was tasty)),

where $e$ is a variable for events, $x$ for objects and $t$ for times; $t_u$ is the time of utterance; AGENT, THEME, MANNER and TIME signify thematic roles. As could be easily seen, in (10) "for Anna" is still sentential, although the sentence that falls within its scope is not the complex sentence "Maria ate something that was tasty in a funny way" (as arguably Cappelen and Hawthorne believe), but the simpler one "$x$ was tasty", where $x$ is the thing that Maria ate. The *Sententiality* of "for Anna" is thus not threatened by examples like (9).

substantial assumption, for it is not obvious that the relativist has to proceed in this way. She could claim, instead, that for each type of subjective predicate there is a different parameter in the circumstances of evaluation to which sentences comprising the type of predicate in question are relative to.

[11] Lihoreau focuses only on example (8), which he represents as "For some $e$, $m$, and $x$, <$e$ was an eating of $x$ by Maria> and <$e$ occurred in way $m$> and <$m$ was dignified> and <for Anna, $x$ was tasty>" (2012: 144).

[12] Thematic roles encode certain features that the denotation of the expressions combining with the verb have. For example, the performer of an action has the thematic role of AGENT, the undergoer of an action has the thematic role of THEME, etc. The issue of what thematic roles there are is vexed, but see Parsons (1990) for a *locus classicus* of thematic role theory.

There might be a debate whether (10) is the best way to capture the logical form of (9). My purpose in what follows, however, is not to show that it is; rather, I want to show that even if one drops *Sententiality* for experiencer phrases like "for Anna", a version of the Operator Argument could be constructed which doesn't rest on that assumption. But before I do so, I will turn to the question of the alternatives to the view that experiencer phrases exhibit *Sententiality*.

## 3. *The variadic functions approach*

If the assumption that experiencer phrases exhibit Sententiality is dropped, what alternative ways to account for such expressions do we have? One natural option would be to treat them as predicational operators (that is, expressions that take as input predicates and yield other predicates). There is more than one way in which this could be done. For example, one could opt to treat such expressions as intentional predicational operators (as does Lasersohn (2005, 2008)), or one could adopt an extensional framework and interpret the expressions in question as modifiers of predicates such as "tasty" (in direct contrast with treating them as arguments of such predicates).

My preferred way to interpret expressions such as "for Anna" is to adopt an extensional framework that appeals to what Recanati (2002, 2004) has called "variadic functions". Recanati's framework has been proposed as a solution to the so-called "argument from binding" in the debate between truth-conditional semantics and truth-conditional pragmatics, but it hasn't been much discussed. Despite its apparent unorthodoxy, the variadic functions framework is just one way of spelling out the idea that certain expressions are treated as adjuncts rather than arguments of other expressions. Let's see what the framework is actually about.

A variadic function is defined by Recanati as "a function from relations to relations, where the output relation differs from the input relation only by its decreased or increased adicity" (Recanati 2002: 319). As this quote makes clear, variadic functions are of two types: expansive and recessive. Various alternations in English, such as the passive alternation (the operation by which we arrive from "John kissed Mary" to "Mary is kissed" by suppressing the subject of the active sentence) and the intransitive alternation (the operation by which we arrive from "John eats the apple" to "John eats" by suppressing the direct object of the verb) can be described as effects of recessive variadic functions. For our present purposes, however, we need the other kind of variadic functions, the expansive ones. To represent them, we define a nonspecific expansive variadic operator, **V**, and a family of more specific ones, one for each type of argument that the operator increases the adicity of the input predicate with. The semantic effect of an expansive variadic operator is the creation of a new predicate which differs from the input predicate by its increased adicity. The effect of the unspecific expansive variadic operator on a predicate of adicity $n$ can be described as follows:

(11) $\mathbf{V}\ (\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)) \equiv \lambda x_1 \ldots \lambda x_n.\ \lambda y.\ \mathrm{P}^*\ (x_1 \ldots x_n, y)$,

where $\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)$ represents the input predicate P with its $n$ arguments unsatisfied, while $\lambda x_1 \ldots \lambda x_n.\ \lambda y.\ \mathrm{P}^*\ (x_1 \ldots x_n, y)$ represents the new predicate having as arguments all the ones P has plus the additional argument, $y$.

Having defined the expansive variadic operator, Recanati's claim is that certain expressions in natural language can be interpreted by appeal to such an operator.[13] Thus, in order to capture the semantic effect of natural language expressions by appeal to expansive variadic operators, we need to complete the operators with specific values for the additional argument place of the new predicate created by the operators themselves. The semantic effect of the natural language expressions in question will therefore be twofold: they will contribute i) an expansive variadic operator of a certain sort which transforms the predicate it applies to into a new predicate with an additional argument place; ii) a value for that additional argument place of the newly-created predicate. The net semantic effect of such expressions will thus be the creation of a new predicate of the same semantic type as the input predicate, but which is more specific as a result of the new predicate combining with the expression that gives the value of the additional argument place.

To see how exactly this works with an example, consider sentence

(12) It is raining in Paris.

Since the expression whose semantic effect we are trying to capture is the locational phrase "in Paris", we need first to define a locational expansive variadic operator, $\mathbf{V}_{\text{location}}$, whose effect on a predicate could be described as follows:

(13) $\mathbf{V}_{\text{location}}\ (\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)) \equiv \lambda x_1 \ldots \lambda x_n.\ \lambda y.\ \mathrm{P}^*(x_1 \ldots x_n, l)$

where $\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)$ represents the input predicate P with its $n$ arguments unsatisfied, while $\lambda x_1 \ldots \lambda x_n.\ \lambda y.\ \mathrm{P}^*\ (x_1 \ldots x_n, l)$ represents the new predicate having as arguments all the ones P has plus the additional argument for locations, $l$. Using the operator just defined, (12) will be represented as

(14) $\mathbf{V}_{\text{location: Paris}}\ (\text{rain}) \equiv \text{rain\_in}\ (\text{Paris})$,

where the phrase "in Paris" is treated as contributing both a locational expansive variadic operator which transforms the predicate "rain" into a new predicate with an additional argument place for locations (a predicate symbolized as "rain_in") and the specific value for that additional argument place of the newly-created predicate (in this case, Paris).

Returning now to the case of the experiencer phrase "for Anna", in order to capture its semantic effect first we have to define a different

[13] See in particular Recanati (2002). In this, Recanati follows the lead of authors like McConnel-Ginet (1982), Keenan and Faltz (1985) and Barwise (1989) who, despite using different semantic frameworks, have all postulated operators similar to the variadic ones used by Recanati with the aim of accounting for various natural language expressions.

type of expansive variadic operator—call it "subjectual"—which functions as follows:

(15) $\mathbf{V}_{\text{subject}}(\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)) \equiv \lambda x_1 \ldots \lambda x_n.\ \lambda s.\ \mathrm{P}^*(x_1 \ldots x_n, s)$,

where $\lambda x_1 \ldots \lambda x_n.\ \mathrm{P}\ (x_1 \ldots x_n)$ represents the input predicate P with its $n$ arguments unsatisfied, while $\lambda x_1 \ldots \lambda x_n.\ \lambda s.\ \mathrm{P}^*\ (x_1 \ldots x_n, s)$ represents the new predicate having as arguments all the ones P has plus the additional argument for subjects, $s$. Using the operator just defined, (1) will represented as

(16) $\mathbf{V}_{\text{subject: Anna}}$ (tasty (whale meat)) ≡ tasty_for (whale meat, Anna),

where the phrase "for Anna" is treated as contributing both a subjectual expansive variadic operator which transforms the predicate "tasty" into a new predicate with an additional argument place for subjects (a predicate symbolized as "tasty_for") and the specific value for that additional argument place of the newly-created predicate (in this case, Anna).

## 4. *Reformulating the argument*

By adopting the view presented above about experiencer phrases like "for Anna", one gives up the *Sententiality* assumption for such phrases. Since the Operator Argument as formulated above (section 1) relied on this assumption, it fails too. The question that arises is whether another variant of the argument could be constructed, one in which *Sententiality* for experiencer phrases plays no role.[14] In this section I will show how the Operator Argument could be reformulated so that to make clear that the assumption of *Sententiality* has been dropped.

So, how exactly would such a version of the argument look like? We can arrive at a new argument-schema by closely following the one provided by Cappelen and Hawthorne. With E now standing for natural language expressions exhibiting *Predicativity* (where an expression E exhibits *Predicativity* if the result of E's combination with a predicate is another predicate), P for predicates and M for parameters of the context that have a bearing on the truth values of utterances of P, the argument in its general form could be put as follows:

*L1*. Parameter Dependence*: P is evaluable for denotation[15] only once a value along parameter M is specified.

[14] See also Weber (2012) for providing another such version of the Operator Argument. Weber, however, seeks to defend *Sententiality* for some of the expressions mentioned before—especially temporal ones, while at this point I assume that *Sententiality* fails.

[15] I take the denotation of a predicate to be the set of things that satisfy the predicate. To say, as *Parameter Dependence* states, that a predicate is evaluable for denotation only once a value for a certain parameter is specified is that the set of things satisfying the predicate cannot be established without the provision of that value.

*L2**. *Uniformity*: P is of the same semantic type when it occurs alone or when it combines with E.
*L3**. *Vacuity*: E is semantically vacuous (i.e., it does not affect denotation) when it combines with an expression that semantically supplies a value for M.
*L4**. E is not semantically vacuous when it combines with P.
*L5**. By *Vacuity* and (*L4**), P does not supply a value for M when it combines with E.
*L6**. By *Uniformity* and (*L5**), P does not supply a value for M when it occurs alone.
*L7**. By *Parameter Dependence* and (*L6**), P cannot be evaluated for denotation.

Replacing E with "for Anna", P with "tasty" and M with the parameter of the context providing the value for the subject in the argument schema above, we get the following particular instance of the Operator Argument:

*L1"*. *Parameter Dependence*: "tasty" is evaluable for denotation only once a value along the subject parameter is specified.
*L2"*. *Uniformity*: "tasty" is of the same semantic type when it occurs alone or when it combines with "for Anna".
*L3"*. *Vacuity*: "for Anna" is semantically vacuous (i.e., it does not affect denotation) when it combines with an expression that semantically supplies a value for the subject parameter.
*L4"*. "For Anna" is not semantically vacuous when it combines with "tasty".
*L5"*. By *Vacuity* and (*L4"*), "tasty" does not supply a value for the subject parameter when it combines with "for Anna".
*L6"*. By *Uniformity* and (*L5"*), "tasty" does not supply a value for the subject parameter when it occurs alone.
*L7"*. By *Parameter Dependence* and (*L6"*), "tasty" cannot be evaluated for denotation.

How is this argument, if sound, supposed to support relativism about predicates of personal taste? The crucial line for getting this result is *L6"*: "tasty" does not supply a value for the subject parameter when it occurs alone. What this means is that there is nothing in the content of "tasty" (neither in its lexical entry, nor in its deep structure—no hidden variable) that would supply a subject to its content. From *L6"* and *Parameter Dependence* we then get *L7"*: "tasty" cannot be evaluated for denotation by itself. Since we do assign denotations to our uses of "tasty", the subject must come from somewhere. But in the Kaplanian framework we operate in there are only two sources where a certain value for parameters of the context that have a bearing on the truth values of utterances could come from—the content of an expression and the circumstance of evaluation with respect to which utterances of such expressions are evaluated against. Since the subject doesn't come from the content, it must come from the circumstances of evaluation.

Therefore, the argument supports relativism, in the sense used in this paper.

In a symposium of their book, Cappelen and Hawthorne consider such a variant of the argument: "[W]hile the operator argument as stated can only get off the ground if *Sententiality* is in place, various alternative proposals may allow that something like it can get off the ground even once *Sententiality* is relinquished." But, they continue, "[t]hat is not to say of course that the new argument will be any good! Responses very similar to those we provide in [*Relativism and Monadic Truth*] will be available to the variant arguments, the details of the appropriate response depending on the particular choice of predicate modifier chosen." (Cappelen & Hawthorne, 2011: 154). In the next section I will argue that the objections they raise against the original version don't apply to experiencer phrases such as "for Anna"—at least, not if one is ready to adopt certain frameworks that are no less plausible than the ones Cappelen and Hawthorne rely on.

## 5. *Defending the argument*

As we have seen in section 2, one of the complaints that Cappelen and Hawthorne had against various instances of the Operator Argument involving modal, temporal, locational and precisional expressions was that the assumption of *Sententiality* doesn't hold. But, in addition, their case against those instances of the argument also rested on noting that in some cases the other assumptions that the proponents of the argument made (*Parameter Dependence*, *Uniformity* and *Vacuity*) are equally unmotivated. In section 3 I showed that their case against *Sententiality* for experiencer phrases like "for Anna" is shaky, but I was ready to drop the assumption in order to show that a version of the argument that doesn't rely on it can be constructed. I offered such version in the preceding section. But one question remains: do the reasons they bring against the other assumptions holding in the case modal, temporal, locational and precisional expressions transfer, *mutatis mutandis*, to the case of expressions such as "for Anna"? In what follows I will investigate whether this is the case and argue that it is not obvious that they do. I will proceed by taking each assumption in turn and see what Cappelen and Hawthorne have to say against it for each type of expressions and the corresponding contextual parameter they consider.

### 5.1. *Parameter Dependence*

The reasons the two authors give for this assumption failing are different for each type of parameter corresponding to each type of expression. Thus, regarding dependence of truth of sentences on possible worlds, they point out that philosophers arguing for this dependence have overstated the implications of contemporary semantics.[16] Their

[16] This is also the main point of Glanzberg (2009).

argument basically consists in stressing the plausibility of actualism and the fact that "no semanticist has shown that actuality is just one reality among many" (Cappelen & Hawthorne 2009: 78). The idea is simply that, both intuitively and from a metaphysical point of view, a sentence like "There are no talking donkeys" is true or false if there are or there aren't any talking donkeys. If this is true, then, fundamentally, truth and falsity of propositions are monadic properties, and not relational ones such as being true/false-at-a-world. And although this doesn't mean that semanticists should abandon talk of possible worlds or not use the notions of truth/false-at-a-world, since such notions are useful in analyzing modal expressions such as "possibly" and "necessarily", it prompts the conclusion that the fundamental properties are those of being true and false *simpliciter*, rather than the theoretically-constructed ones of being true/false-at-a-world.

The argument in the case of time is similar to the one above, with the difference that here two metaphysical views about time are equally plausible: presentism and eternalism. According to the presentist, past and future times are not real; the only real time is the present. Thus, all propositions will be true at the present time by default. So no relational notions of being true/false-at-a-time are needed. In contrast, for the eternalist, past and future times are real, and thus specification of time is important for evaluating sentences. It thus seems that for eternalists *Parameter Dependence* does hold. In any case, Cappelen and Hawthorne's point is that the assumption doesn't hold across the board, and thus whether it holds or not depends on one's preferred view on time.

Moving now to locations and standards of precision, Cappelen and Hawthorne note that there are many sentences utterances of which don't depend in their evaluation on the provision of a location. "Ernie is dancing" is one such sentence. True, for the sentence to be true Ernie needs to dance at some place or another, but this is simply a metaphysical fact about dancing and about events in general that they cannot but take place at a location. And, finally, commenting on the idea of the truth of utterances is relative to standards of precision, Cappelen and Hawthorne say that expressions such as "by loose standards" could be interpreted as a function from propositions to a proposition consisting in a conjunction of propositions close enough to the initial proposition (this disjunction is called "the loosening" of the original proposition). If that is a way to go, then *Parameter Dependence* need not hold in the case of standards of precision.[17]

Let's see whether these considerations against *Parameter Dependence* cut any ice in the case of parameters for subjects. First, note that one could accept all what Cappelen and Hawthorne say about *Param-*

[17] The general idea that certain expressions are to be conceived as functions from propositions to propositions is applied not only in the case of precisional expressions, but also in the case of modal, temporal and locational expressions as well. See my answer to this suggestion below.

*eter Dependence* in the case of possible worlds and times, and still hold that the assumption is perfectly safe in the case of predicates of personal taste. For, at least under the subjectivist picture I assumed for the kind of properties predicates of personal taste stand for (section 1), what happens is exactly the opposite: a sentence such as "Whale meat is tasty" cannot be true *simpliciter*; the whole idea of the subjectivist framework was to make room for conceiving properties such as those predicates of personal taste stand for as being dependent on a subject. There is nothing corresponding to "the only reality there is" or "the only time there is" for these sentences to be true with respect to. It is not my intention here to argue for "perspectival facts" or kindred notions; the only point is that, within the subjectivist framework, such predicates don't get a denotation, and thus sentences in which they occur don't get a truth-value, unless a subject is somehow provided. So it seems to me that the case of possible worlds and times (under the presentist view) is essentially different from that of subjects in connection to predicates of personal taste.

As for the reasons Cappelen and Hawthorne offer against *Parameter Dependence* in the case of locations, let me first remark that their task is much more difficult than finding one example in which the assumption doesn't hold. In contrast, it would be enough for the supporter of *Parameter Dependence* in the case of locations to find *one* example for which it does. Furthermore, the example they give, involving the verb "dance", is not very significant, since "dance" seems to be an expression for which there is not much controversy related to its truth-evaluability in the absence of a location. However, for a great many of other expressions the discussion is very much open—for example, meteorological verbs such as "rain". In any case, as we have seen above, for predicates of personal taste the provision of a subject is essential for truth-evaluability, so their case is again different from the case of "dance". Finally, consider the idea that precisional expressions such as "by loose standards" are functions from propositions to loosenings of those propositions. Even if this is right, I don't see any clear sense in which the proposition expressed by (1) is a loosening of the proposition expressed by the sentence "Whale meat is tasty". The way in which the first proposition is a loosening of the second must be made more precise for this idea to be applied to the case at hand.

I thus conclude that the arguments Cappelen and Hawthorne give to the effect that *Parameter Dependence* fails in the case of the parameters corresponding to modal, temporal, locational and precisional expressions do not transfer to the case of subjects, the relevant contextual parameter for predicates of personal taste. In the latter case there is a strong intuitive case that the assumption holds—at least if one adopts (what I take to be) a very plausible subjectivist picture of the properties they stand for.

### 5.2. *Vacuity*

One observation[18] made by Cappelen and Hawthorne concerning *Vacuity* is that in some cases locational expressions felicitously combine with expressions that already contain specification of a location. Their example is

(17) John is dancing in Boston in New England.

Also, the same phenomenon can be observed in the case of temporal expressions. (18) below is perfectly felicitous:

(18) Yesterday, between 2 and 4, it rained heavily.

As they themselves note, these cases are special. The peculiarity of (17) stems from the fact that some locations are proper subparts of other locations: Boston is part of New England. The peculiarity of (18) stems from the fact that the temporal interval referred to by the expression "between 2 and 4" is part of the interval referred to with "yesterday". But the possibility of stacking such expressions supports the idea that locational and temporal expressions might not be vacuous when a broader location or time interval is implicitly supplied by the expressions with which the locational and temporal ones combine. "In Boston" need not be vacuous when a broader location is supplied by "John is dancing"; "yesterday" need not be vacuous when a larger interval is supplied by "it rained". Thus, *Vacuity* doesn't hold across the board.

I'm not sure how much dialectic force the examples in which locational and temporal expressions are stacked have. One way to interpret the two locational expressions in (17) and the two temporal ones in (18) is to hold that they combine to form one single operator that in turn operates on the input expression.[19] But regardless of the merits of such a view, the point I want to make here is that stacking doesn't seem possible with experiencer phrases. A sentence like

(19) For John, whale meat is tasty for Anna

is grammatical, but "for John" surely doesn't have the sense we are interested in, and thus cannot be interpreted as an experiencer phrase; rather, "for John" seems here to have the sense of John *believing* that whale meat is tasty for Anna (see Kölbel (2009) or Lasersohn (2008) for discussion).[20] More importantly, the idea of locations being subparts of

[18] They make two other remarks: that in some cases E and ES have the same truth value but make different truth-conditional contributions (for example, when E is "actually") and that an expression can be communicatively significant even if it is semantically vacuous. Assuming the same holds when E combines with a predicate of personal taste, as far as I can see the two phenomena mentioned in their remarks don't bring any problems for the defender of *Vacuity* for experiencer phrases.

[19] This is the view defended by Brogaard (2012) in connection to temporal expressions and tenses.

[20] I have chosen sentence (19) because at least it seems to be grammatical (although with "for John" having the meaning just specified), in contrast to clearly ungrammatical sentences such as "Whale meat is tasty for Anna for John". Other expressions that could be plausibly interpreted as experiencer phrases, such as

other locations and of intervals of time being subparts of other intervals has no obvious correspondence in the case of subjects. A subject being a subpart of another subject doesn't make sense. A better idea would be to claim that the "part-of" relation here is supposed to hold between a subject and a community of subjects. However, the claim that "tasty" supplies a community of subjects and "for Anna" picks up one individual from that community seems to be an unnecessarily roundabout way of explaining our use of "tasty for Anna". That is not to say that in certain cases when we use sentences like "Whale meat is tasty" the value of the subject parameter implicitly provided by context cannot be a community; it's just that the interpretation of "tasty for Anna" seems more straightforward without the appeal to a community. Perhaps specific examples would dispel this impression. Such examples lacking, I conclude that the reasons Cappelen and Hawthorne give against *Vacuity* in the case of locational and temporal expressions don't hold in the case of experiencer phrases.

### 5.3. *Uniformity*

Cappelen and Hawthorne claim that *Uniformity* is not warranted for the expressions considered. To illustrate, they focus on sentences that combine with locational and temporal expressions such as "somewhere" or "sometimes". They point out that there are several models in the literature that are compatible with the denial of *Uniformity*. For example, one could hold that certain expressions invariably have a hidden pronoun associated with them (the "hidden pronoun model"). The logical form of a sentence like "It is raining" is something that could be paraphrased as "It is raining at $x$", where $x$ is a location; when an expression like "somewhere" is combined with such a sentence, as in "Somewhere it is raining", what happens is that "somewhere" combines with something tantamount to an open sentence. However, this doesn't mean that when "It is raining" appears alone it remains an open sentence: by the contribution of context, a value for the variable $x$ is provided and the sentence expresses a full proposition. Alternatively, one could hold that the surface structure of "Somewhere it is raining" is generated by "somewhere" moving in the logical form from a final position, movement which leaves a trace that gets bound (the "trace-generation model"). On this model also "somewhere" combines with something tantamount to an open sentence. Thus, on both these models *Uniformity* doesn't hold, since "It is raining" has a different type when it occurs in isolation (it is a closed sentence) than when it occurs embedded (it is an open sentence).

"according to Anna's taste" don't fare better on this score: "According to John's taste, whale meat is tasty according to Anna's taste" doesn't make sense. And neither do sentences that mix the two expressions: "According to John's taste, whale meat is tasty for Anna", or "For John, whale meat is tasty according to Anna's taste" are equally bad.

Now, I don't want to deny that the two models sketched above, both giving up *Uniformity*, could be used to account for the expressions at stake. I suppose that there is also no problem applying them to sentences containing predicates of personal taste and experiencer phrases like "for Anna". Also, it won't matter that expressions about which *Uniformity* is said to hold or not are not sentences: it does make sense to talk about *Uniformity* at the sub-sentential level (more precisely, for predicates) too. But, since Cappelen and Hawthorne point towards the existence of extant models in which *Uniformity* fails without giving arguments for why those models should be accepted, from a dialectical point of view it would be enough for me to point towards different models in which the assumption holds. The variadic functions approach that I introduced in section 4 is precisely such a model. Therefore, in the reminder of this section I will show how the model handles sentences similar to the ones Cappelen and Hawthorne have engaged with.

Remember that according to the variadic functions approach, experiencer phrases such as "for Anna" are treated as predicational operators having both the role of creating a new predicate that differs from the predicate they apply to by its increased adicity and that of providing a value for the additional argument place of the newly-created predicate. On this view, the predicate the variadic operator takes as its input is the same (has the same adicity) both when it occurs as input to such operators and when it doesn't. For example, the predicate "tasty" (a one-place predicate) is the same both when it appears in the sentence "Whale meat is tasty" and in (1). Of course, in (1) the predicate gets transformed into a new predicate, "tasty"_for", but only in the process of combining with the subjectual expansive variadic operator contributed by "for Anna".

Now, the expressions combining with predicates of personal taste similar to the ones considered by Cappelen and Hawthorne in the modal and temporal cases are individual quantifiers like "everyone". That the variadic functions approach can also be applied to quantifiers or quantifier phrases was an idea that Recanati himself has defended. To use again the example of locations, quantifiers phrases such as "everywhere John goes" will be given the same treatment as locational expressions like "in Paris"—namely, as contributing both a locational expansive variadic operator which transforms the predicate it applies to into a new predicate with an additional argument place for locations and the specific value for that additional argument place of the newly-created predicate. However, since quantifier phrases cannot deliver specific values, they will deliver a range of values; in the case of the quantifier phrase "everywhere John goes", a range of locations. Thus, the location variable introduced by the locational expansive variadic operator will be bound by the quantifier phrase. Following again Recanati (2002), the sentence

(20) Everywhere I go, it rains,

will be represented in this framework as

(21) $\forall l$ (John goes to $l \rightarrow \mathbf{V}_{\text{location: } l}$ (rain)) $\equiv \forall l$ (John goes to $l \rightarrow$ rain_in ($l$)).[21]

The same strategy will be adopted in the case of predicates of personal taste. Much more would be needed to be said in order to substantiate such a proposal, but the following sketch will hopefully give a clear idea about how this works. Thus, sentence

(22) Everyone got something tasty

will be represented in this framework as

(23) $\forall x\ \exists y$ (($x$ got $y$) & $\mathbf{V}_{\text{subject: } x}$ (tasty ($y$))) $\equiv \forall x\ \exists y$ ($x$ got $y$) & tasty_for ($x$, $y$)),

where "everyone" contributes a subjectual expansive variadic operator which transforms the predicate "tasty" into a new predicate with an additional argument place for subjects and binds the individual variable introduced. As could be easily seen, "tasty" is the same predicate when it occurs alone ("Whale meat is tasty") and when it occurs bound as in (22)—before it combines with "everyone", that is. Thus, *Uniformity* for predicates of personal taste holds.[22]

[21] About examples like (20), Recanati (2002, 2004) claims that the variadic operator is contributed in the truth-conditions via pragmatic processes like free enrichment. I find this claim hard to accept, but what deserves to be stressed is that the apparatus of variadic operators and the treatment of various natural language expressions by appeal to them are independent from a truth-conditional pragmatic framework such as Recanati's. It could be claimed, for example, that the variadic operator is contributed by the quantifier phrase directly in the syntax; alternatively, it could be claimed that it is contributed to the truth-conditions of utterances by other, more constrained mechanisms than free enrichment. I don't want to take a stand here on this issue; the main point is that the apparatus Recanati has introduced could be used by proponents of other views than truth-conditional pragmatics—for example, by the relativist.

[22] There is another objection Cappelen and Hawthorne make in connection to *Uniformity* holding in the case of tenses. The main problem they think tenses raise for *Uniformity* is illustrated by the implausibility of the claim that "there is some constituent of "Ernie danced" that (i) involves stripping a past-tense-marking constituent from "Ernie danced" and (ii) can stand alone as a vehicle of assertion" (Cappelen and Hawthorne 2009: 85). But, if in the case of "Somewhere Ernie is dancing" it could be claimed that there is a stand-alone assertable expression that gets combined with "somewhere" (namely, the sentence "Ernie is dancing"), in the cases of tenses this is not so: the tenseless "Ernie dance" cannot be felicitously asserted. Thus, *Uniformity* fails in the case of tenses.

This objection raises some interesting questions having to do with the type of semantic values the Operator Argument deals with. As I mentioned in footnote 5, the argument could be taken to deal with compositional semantics values or with assertoric/doxastic ones. Now, if the argument is interpreted as dealing with the former, Cappelen and Hawthorne's objection is unfounded: there is no need for the constituent of "Ernie danced" that has been stripped by past-tense-marking to be assertable. If, on the other hand, the argument is interpreted as dealing with the latter, then, indeed, their objection has a bite. Note, however, that the objection they

## 6. *Conclusion*

The conclusion that follows from investigating the reasons Cappelen and Hawthorne have given for *Parameter-Dependence*, *Vacuity* and *Uniformity* failing in the case of modal, temporal, locational and precisional expressions and their corresponding parameters is that they don't hinder the assumptions holding in the case of experiencer phrases such as "for Anna" and the corresponding parameter for subjects. Does this mean that the version of the Operator Argument I provided in section 4 can be safely used to support relativism about predicates of personal taste? As I made clear in due course, the assumptions hold under certain views, different from those Cappelen and Hawthorne make appeal to in their observations. So, strictly speaking, the new version of the Operator Argument could be used to argue for relativism only under the condition that those views are accepted. I haven't given substantial arguments for the views in question; however, I would like to end with some remarks on the plausibility of those views—the subjective picture of the properties predicates of personal taste stand for and the variadic functions approach to experiencer phrases such as "for Anna".

To start with, although not unanimously accepted, the view that the properties predicates of personal taste stand for are subjective properties in the sense employed here seems pretty intuitive. The idea that there are taste-properties out there in the world, completely independent of experiencers/subjects, has been found by many unpalatable. And although more work needs to be done to clarify what subjective properties are and what exactly is the role the subject plays in there being such properties, the opposite view has been found too costly to be accepted. Perhaps more importantly in this context, although an objectivist view about taste-properties is possible, that doesn't seem to be Cappelen and Hawthorne's view: the semantics for predicates of personal taste they end up defending in the book is a contextualist one.[23]

What about the variadic functions approach? As I noted, the framework has been perceived as rather unorthodox, but at a closer look it is nothing more than one way of implementing the idea that certain expressions are treated as adjuncts, and not as arguments. There probably are numerous other ways to implement it, and particular details of the variadic functions approach might be objectionable, but the latter, more general idea is not implausible in itself. Perhaps it is interesting to note in this connection that one early proponent of a view very similar to the variadic functions approach, Sally McConnell-Ginet, has proposed to treat adverbs such as "quickly" by appeal to variadic operators. The starting point of Recanati's proposal was precisely this, and the extension of McConnell-Ginet's (1982) view to other expres-

raise in the case of tenses doesn't apply to experiencer phrases, since sentence such as "Whale meat is tasty" are clearly assertable.

[23] Although contextualism is not incompatible with objectivism about taste-properties, the vast majority of contextualists are subjectivists. The same seems to hold for Cappelen and Hawthorne as well.

sions was automatic and has yielded the result that those expressions (locational, temporal, etc.) should be treated as adjuncts and not as arguments. Now, when criticizing *Sententiality* for modal and temporal expressions, Cappelen and Hawthorne themselves deem the view that these are adverbs "very natural and utterly standard". If a plausible treatment of adverbs is by appeal to variadic operators, according to which they come out semantically as adjuncts instead of arguments, why would the view that experiencer phrases are adjuncts and not arguments be so implausible?

These considerations are by no means enough to establish that the version of the Operator Argument offered supports relativism about predicates of personal taste. However, the views under which *Parameter-Dependence*, *Vacuity* and *Uniformity* hold for such predicates and for experiencer phrases such as "for Anna"—even if *Sententiality* is dropped—seem to be plausible to a significant degree. Such degree of plausibility shows that the argument is well worth to be taken seriously as a reliable support for relativism.[24]

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