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# Talking about Taste: Disagreement, Implicit Arguments and Relative Truth

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[work in progress/comments welcome]

## Abstract

A number of proposals have been recently made that converge towards the idea that the truth value of an utterance, even once its indexicals and other overt context-sensitive elements have been resolved, still depends on more parameters than just a possible world. Expressions whose semantics arguably requires such a relativization include knowledge ascriptions, epistemic modals, future tense, deontic expressions, and predicates of personal taste. My goal in this paper is to take issue with certain arguments meant to establish that the correct semantics for these expressions *must* use contents that are functions of further things, such as taste standards, in addition to possible worlds, and that the relevant parameter *cannot* be seen as an implicit argument lexically triggered by the expression. I will focus on predicates of personal taste, and will try to show that the two prima facie rival accounts are pretty much notational variants of one another. In the first half of the paper, I will argue that the account of faultless disagreement should work alike on the two accounts, and that any case of what seems to be faultless disagreement is either an instance of genuine disagreement (hence one of the parties is at fault) or an instance of misunderstanding (the parties believe to be in disagreement, but neither is at fault). In the second half of the paper, I will show that the two semantic frameworks are equivalent: for any given sentence containing a taste predicate, and any given context, the two accounts will predict the same truth value. The upshot of my paper is, then, to show that when properly construed, there is much less disagreement between the implicit argument account and the relativist account than it may seem at a first glance.

## 1 The Argument from Faultless Disagreement, and the Case for Relativism

Predicates of personal taste – words like 'delicious', 'tasty', 'lousy', 'fun', etc. – give rise to a puzzle. Consider this dialogue between Tarek and Inma, who have just tasted some soybean ice-cream:

1. Tarek: This is delicious.
2. Inma: That's not true. This isn't delicious at all.

On the one hand, we are inclined to say that Tarek and Inma disagree. After all, Tarek says that the soybean ice-cream is delicious, and Inma says the opposite, namely, that it is not delicious at all. Claiming opposite things and denying what the other person is saying are cases of disagreement par excellence. But on the other hand, we are also inclined to say that Tarek and Inma may both be right, and that their seemingly contradictory utterances may both be true. After all, most of us are fully aware that what is delicious for me might not be delicious for you and vice versa. So here comes a puzzle:

- a: For any two utterances  $u_1$  and  $u_2$ , to say that the utterer of  $u_1$  disagrees with the utterer of  $u_2$  is to say that  $u_1$  denies what  $u_2$  asserts and the other way round. This, in turn,

means that if  $u_1$  is true, then  $u_2$  is false, and if  $u_1$  is false, then  $u_2$  is true.

- b: Intuitively, the utterer of 1 (Tarek) disagrees with the utterer of 2 (Inma).
- c: On the assumption that Tarek finds the soybean ice-cream delicious and that Inma does not, the intuitions are that 1 is a true utterance, and that 2 is also a true utterance.
- d: If we are to trust our intuitions, we are led to a contradiction. For, we are led to say that if 1 is true then 2 is false (from a and b) and that 1 and 2 are both true (c), which gives us, in turn, that 2 is both true and false, and the same for 1.

I want to dispel the puzzle by rejecting the claim that b and c hold together. More precisely, I accept that a dialogue such as 1-2 triggers both the intuition that if what Tarek says is true, then what Inma says can't be true, and the intuition that Tarek and Inma, if sincere, are both saying true things. But the two intuitions go obviously against each other, and to see which intuition wins out, to put it so, one needs further information on the context in which the dialogue is taking place. In particular, one needs to know whether the two parties intend to be talking of their own taste, that is, whether each party claims that something is delicious for him or for her, or instead, aim at generality, claiming that a given thing is delicious *tout court*, that is, delicious for everyone or most people (possibly in some contextually specified domain).

At any rate, once there is enough information on the context – ie on what the parties are talking about and can reasonably be taken to be talking about – it becomes possible to decide whether their case is a case of real disagreement, or only a misunderstanding. The point is that we do not get b and c simultaneously, and are thus safe from contradiction. Section 2 will elaborate this point.

My way out of the puzzle presupposes that in order to determine the truth values of 1 and 2, we need something like a *parameter of taste*. But this parameter can be construed as being on a par with other contextual parameters such as, say, the *addressee*, which we need to determine the truth values of utterances containing the 2<sup>nd</sup> person pronoun. The taste parameter, thus construed, will affect the truth of utterances containing taste predicates by supplying the value for an argument associated with the predicate. Thus in the case in which Tarek and Inma resolve their apparent disagreement by realizing that they are merely expressing their own taste, the fully specified contents of their utterances would roughly be as follows:

- 1'. Tarek: This is delicious [according to Tarek's taste standards].
- 2'. Inma: Oh, no, this is not delicious [according to Inma's taste standards].

Whereas in the case in which their disagreement turns out to be genuine, we would rather have:

- 1". Tarek: This is delicious [according to universal taste standards].
- 2". Inma: Oh, no, this is not delicious [according to universal taste standards].

To be sure, the proposed disambiguations do not exhaust all the possibilities; but the details

of the account will be spelled out in section 3. Meanwhile, let us look at the sort of arguments, run by authors like Peter Lasersohn or Max Kölbel, from cases of *prima facie* disagreement to a defense of relativist semantics.<sup>1</sup> Here I am giving my own construal of Lasersohn's main argument:

- H1: The content of 2 is the negation (or set-theoretic complement) of the content of 1. That the negation is at the *content* level, rather than at the *sentential* level, can be seen from the intuition that Inma and Tarek really disagree. By contrast, if Inma were referring to one thing and Tarek to another, we would not say that they disagree, but only that they misunderstand each other – even though the sentence that Inma utters would still be, *qua* sentence, the negation of the one that Tarek utters.
- H2: At the same time, we have a strong intuition that, if Tarek and Inma are both sincere, then 1 and 2 are true at the same time, in the same possible world.
- C: From H1 and H2, we *must* conclude that the contents of 1 and 2 are functions of more than just a possible world. They are functions of something like a taste parameter. By evaluating the same content at different taste values (within the same world) we may obtain different truth values, which explains how 1 and 2 can be simultaneously true, in spite of expressing contradictory (or complementary) contents.

In this paper, I will take issue with this argument and show that the '*must*' in C is unwarranted. Let me call "taste-neutral" those contents that are functions of a taste parameter. I will argue that taste-neutral contents are simply *one* way of dealing with taste expressions, but by themselves, they do not provide an explanation of faultless disagreement. Moreover, the relevant taste parameter may be seen equally well as supplying the value for an implicit argument associated with the taste predicate. The semantic data, I will argue, do not cut sharp between the two analyses. The two accounts give the same predictions of truth value, and so the question of which account is *better* can at best be settled by considerations of simplicity, elegance, interface with syntax, and the like. In section 4, after spelling out the relativist semantics (of the kind given by Lasersohn), I will show on a couple of examples that the relativist account of faultless disagreement cannot be significantly different from the implicit argument, or *contextualist*, account. But this is to be expected anyway, because, as I will show, the two accounts, relativist and contextualist, are semantically equivalent; that is to say, they never end up assigning different truth values (to one and the same sentence in one and the same context). To show this, I will provide a bi-directional translation procedure between the relativist and the contextual formal languages, and then point to a formal equivalence result, borrowing from known results of elementary modal logic.

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<sup>1</sup> Admittedly, the relativist approach defended by John MacFarlane is different from the relativism of Kölbel and that of Lasersohn. Incidentally, MacFarlane has been trying to initiate a different terminology for the types of frameworks such as Kölbel's or Lasersohn's, presumably with the intent to avoid confusion and have the name relativism reserved for his own framework. But others, including Kölbel and Lasersohn themselves, have been calling their frameworks relativist and I will accordingly keep using this term for a version of relativism that, I repeat, is not MacFarlane's.

But even without going that far, it takes little to see that the relativist "solution" to the puzzle is not much of a solution. For assume, as the relativist urges us to do, that the content of 1 is a function of taste, and suppose that, given some world, it will take value True when evaluated at Tarek's taste and False when evaluated at Inma's taste. If Tarek is a competent speaker and is aware, as most of us are, that different people like different things, then in uttering 1, Tarek must intend his claim to be evaluated for truth at some particular taste standards. If Tarek intends his utterance to be evaluated for truth at his own taste standards, and if Inma intends her utterance to be evaluated at her own, then they do not really disagree, and I contend that the relativist ought to agree with me on this point. On the other hand, if Tarek intends his claim to be evaluated at some general standards of taste, and if Inma does so, too, then they do disagree, but only one of them will get it right, only one utterance will be true.

Granted the equivalence between the contextualist and the relativist semantics, there might still be reasons for preferring one account over the other. In section 5, I will (non-conclusively) discuss some of them, mostly in relation to embedded occurrences of taste expressions. The final thought, though, is that the choice between the implicit argument account and the relativist account, at least when talking about the taste, is itself pretty much a matter of taste.

## 2 Disagreement vs. Misunderstanding

Expressions of taste appear to exhibit the phenomenon of the first person authority in the way in which, say, belief-reports do. If I sincerely report my own beliefs, then it seems that I cannot go wrong. No one can tell better than me whether I believe that soybean ice-cream contains in average less calories than diary ice-cream. Similarly, if we are deciding the issue of whether something is tasty *to me*, it is fairly plausible to assume that no one can tell better than myself whether or not that is the case. Some assumption of this kind underlies the intuition that disagreement on taste issues is *faultless*, and that when Tarek sincerely says of a given dish that it is delicious, and even explicitly adds that it is delicious *for him*, then he can't be wrong. However, whether this assumption is correct or not is not a properly *semantic* issue, and the semantics that we shall choose for taste predicates ought to stay neutral with respect to the question whether we should indeed accept the first person authority here. In other words, the formal semantics ought to allow for models in which, for example, we get it that a certain roller-coaster is fun for Mary, even though Mary herself would never assent to the claim that it is fun. The semantic account proposed in section 3, as well as the relativist one given in section 4, have the advantage of staying neutral on the issue of what it is that determines whether or not something is fun, delicious or lovely for a given person, that is, for a given assignment of value to the taste parameter. Having emphasized this, I will proceed as if the first person authority were granted in the case of taste predicates.

Consider the following dialogue:

3. Tarek: Paris is lovely.

4. Inma: Oh, come on! That's not true. Paris is not lovely at all.

Recall that the puzzle was that the two equally plausible intuitions that arise in relation to such dialogues will lead us to a contradiction. One is that Tarek and Inma disagree. After all, Tarek says that Paris is lovely, and Inma says the opposite, namely, that Paris is not lovely. And if they disagree, then if one is right, the other must be wrong. But this conflicts with the other intuition, namely that if Tarek and Inma are sincere, and if Tarek finds Paris lovely and Inma does not, then they are both right, they are both saying something true.

My goal in this section is to show that a more careful analysis of the data demonstrates that, given any case of prima facie disagreement, further considerations of the context and the ways in which the conversation would develop enable us to decide whether it was a case of genuine disagreement or merely disagreement that arose from a misunderstanding. In other words, given any particular instance, one intuition will outweigh the other, so we are safe from contradiction.

### **2.1. To acknowledge that one has been talking about one's own taste shows that there was no disagreement in the first place**

In the episode that we are imagining, Tarek might insist saying, "Paris is definitely lovely," and Inma might reply "Paris is all but lovely," and their disagreement could go on and on and on. But it need not. One way for Inma and Tarek to resolve their disagreement would be to recognize that what may be lovely for the one need not be lovely for the other:

5. Tarek: OK. I find Paris lovely, that's all I'm saying.  
6. Inma: OK, and I don't find Paris lovely at all; that's all I'm saying.

In 5 and 6, Tarek and Inma have made it explicit that in claiming that Paris is lovely, they were talking of themselves and their own taste. In other words, in 5 and 6 they have articulated the value for the taste parameter. This they can do on the assumption that the issue of whether something is lovely or not depends not only on the thing itself, but also on something like the standards relative to which things are to be evaluated for their loveliness. By acknowledging that in 3 and 4 different standards had been deployed, viz. Inma's vs. Tarek's, the two of them will realize that, even though apparently saying contradictory things, both Tarek's utterance of 3 and Inma's utterance of 4, if understood as claims about their respective taste, can be simultaneously true. And if both can be true, then there isn't really disagreement between them – as they realize themselves in 5 and 6, having moved from "Oh yes/Oh no" dialogue to "OK/OK" dialogue.

### **2.2. Genuine disagreement about taste is not different from disagreement about facts**

Even though in matters of taste, people sometimes reach some kind of agreement by realizing that people like different things, and that their respective taste partly determines the truth values of utterances involving expressions of taste, at other times they persist disagreeing, as if there were a matter of fact as to whether a given thing had a given property (such as loveliness) or not. In Tarek and Inma's episode, it is easy to imagine that they may

never resolve their disagreement, even after they will have come to realize that the truth of their utterances may vary with variations in taste:

7. Tarek: Paris is lovely – and it's not just that *I* find it lovely; Paris is lovely *tout court*.
8. Inma: No, that's not true. Paris is not lovely – though I understand that for many people it is.

What do people who disagree whether something is lovely (delicious, interesting, fun..) *tout court* actually disagree about, if the truth of what they are saying depends indeed on an extra parameter? For, if Inma and Tarek were to supply different values for this parameter, and if their seemingly contradictory utterances happen to be both true because of being evaluated at those different values, there would be no matter for disagreement, as we saw in Case 1. *De gustibus non est disputandum*.

A plausible answer is that in the case of genuine disagreement, the two parties agree on the value supplied to the taste parameter, and disagree as to whether, given that value, a given thing is lovely or not. The two parties cannot be both right, and in this respect, their disagreement is on a par with ordinary factual disagreement. If Inma claims that their friend Yoko has never been to Paris, and Tarek says that she has, then they disagree as to whether Yoko has even been to Paris or not. That is a matter of fact, and only one of them can be right, depending on whether Yoko has indeed ever been to Paris. Similarly, if Tarek says that Paris is lovely, *simply lovely*, and Inma denies that, what is likely to be at stake, I suggest, is that they intend to be making generic claims. Tarek is roughly saying that Paris is lovely for people in general, and that's what Inma is denying (though she accepts that it may be lovely for many people). To resolve this sort of disagreement, they would need to determine if Paris is lovely on such universal standards. Once this is determined (say, by some sort of survey), the one who is wrong should admit that she was wrong and that her generic claim was false, and accordingly revise her beliefs. For instance, for the particular example that we are considering, it would be reasonable for Inma to accept that Paris *is* lovely according to some generally accepted standards, and that hers are an exception. The situation appears to be pretty much the same as with factual disagreement. If Inma is shown a picture of Yoko taken in Paris, she would presumably decide that, after all, Yoko has been to Paris, and admit that what she had previously claimed was false.

People may disagree even if they don't intend their claims to be fully universal. Consider one of Lasersohn's key examples:

9. John: Roller-coasters are fun.
10. Mary: Oh, no, they are not.

If all that John is saying in 9 were that roller-coasters are fun *for him*, and if what Mary is saying were that they are not fun *for her*, they would be expressing differences in taste, but they would not be really disagreeing – at least, not in the sense of contradicting each other. For real disagreement to take place, they should have agreed on the value for the taste parameter, ie the value that answers the question "fun for whom?". But that value need not be the *universal* standards. It is enough for John to be saying that roller-coasters are fun *for most*

*people*, and for Mary to be denying that, for disagreement to take place. And again, we get pretty much the same sort of disagreement as when people disagree about plain facts, as in the following:

- 11. John: Most visitors have purchased their tickets in advance.
- 12. Mary: No, it's not true that most visitors have purchased their tickets in advance.

Finally, people may disagree even if their claims lack any kind of genericity. Suppose that John and Mary are back from EuroDisney, and you ask them: "Did you guys have a good time?"

- 13. John: Yeah, we had a great time. The roller-coasters were particularly fun, don't you agree?
- 14. Mary: I don't. We did have a great time, but the roller-coasters were not that fun.

A plausible way to interpret their dialogue is by taking John to be saying that the roller-coasters were fun *for the two of them*, and that this is what Mary is denying. To be sure, John may reply in turn "OK, they were fun for me," and it would not be very rational of John to insist that they were fun for Mary as well, even though he might. ("Come on, Mary, you can't tell me that you didn't have fun on those roller-coasters!") But the point is, again, that the disagreement between John and Mary in 13 and 14 presupposes that they agree on the question of whom it is that they disagree whether the roller-coasters were fun for, and that they cannot be both right.

### 2.3. Disagreement sometimes comes from misunderstanding

Let us now turn back to the dialogue between Inma and Tarek, repeated below:

- 15. Tarek: Paris is lovely.
- 16. Inma: Oh, come on! Paris is not lovely at all.

Our immediate reaction, as previously noted, is to take Tarek and Inma to be disagreeing with each other. But suppose that to Tarek's insisting that Paris is surely lovely, Inma replies:

- 17. Inma: Paris is all but lovely. She's arrogant and fake.

It is at this point that Tarek realizes that he and Inma are not talking about the same Paris. While he meant to be talking of the French capital, Inma, who had been reading the magazine *People*, took him to be talking of Paris Hilton, rich celebrity, whose photo was on the cover page.

It happens often enough that people engage in disagreement simply because they think that they are talking of the same thing, and that one is denying what the other is saying of that thing, whereas in fact, they are talking about different things. This is what happens in 15 and 16. Tarek, thinking of where he would like to go, was talking of the city. But in doing so, he overlooked the fact that Inma was reading a magazine with Paris Hilton on the cover page, and was therefore likely to take him to be talking of *that Paris*, not of the city.<sup>2</sup>

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2 The question of what Tarek actually *said* in 15 is notoriously controversial. Some are inclined to say that he



The lesson to be drawn from the case of 15 and 16 is that it often happens that people disagree, that is, engage in disagreeing behavior, when there are virtually no facts that they disagree about. Or, more accurately, the facts that their disagreement turns upon are facts about the context and their use of words. For example, Tarek in 15 believes that his use of the name 'Paris' enables him to refer unambiguously to the French capital, while Inma believes that his use of the name 'Paris' is meant to stand for Paris Hilton. So even here, there is something factual that Inma and Tarek disagree about, namely, the issue of which Paris is being referred to with the name 'Paris'. But, of course, they do not realize that their disagreement is due to a lack of agreement on what their words stand for.

When the parties themselves do not realize that their disagreement turns upon some facts about the context and the use of language, we prefer to talk of misunderstanding rather than disagreement. I would like to suggest that many cases of *prima facie* disagreement on matters of taste come very close to cases of misunderstanding. Consider the following dialogue:

18. Mary: This is tasty.

19. John: No, this is not tasty.

Suppose that Mary and John are both eating the same kind of ice-cream with a waffle. Now, if John means to be referring to the ice-cream while Mary means to be referring to the waffle, we would say that they do not really disagree, even though they think that they do. We would say instead that they are talking past each other. But if they are both referring to the ice-cream, and if Mary is talking about her own taste and John about his own, and if we are willing to say that John and Mary are both saying true things, then this case, I submit, is not that different from the one in which John is talking of the ice-cream and Mary of the waffle.<sup>3</sup> To be sure, with mundane objects like waffles or ice-creams or cities or people, misunderstanding is more flagrant than when what one's utterance is partly about are things such as taste, evaluative or epistemic standards. But if there is indeed a taste parameter to which the truth values of utterances involving taste predicates are sensitive, and if two apparently contradictory utterances target different values for the taste parameter, then we should not view them as contradictory, nor should we view the people making them as truly disagreeing. To the extent that we may talk of disagreement, we ought to talk of a

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said that Paris the city was lovely, since that is what he intended to refer to by 'Paris'. Some want to say that it is Paris the woman who he said was lovely, since she was most salient to Inma, the addressee. Some might want to say that nothing determinate has been said. At any rate, and for the purposes of our discussion, we may simply assume that what he said is just "Paris is lovely," a grammatical sentence containing the name 'Paris', the present tense copula 'is' and the adjective 'lovely', and that Tarek's utterance of this sentence is true in the case in which the name stands for the city of Paris, and false if it stands for Paris Hilton. (I have argued elsewhere, eg in my (2006), that it is best to take what is said to be the lexical meaning of the sentence uttered, rather than any propositional content obtained by resolving the referential expressions in the sentence.)

3 Some might object that the presence of the particle 'no' in John's reply shows that John must be contradicting what Mary is saying, and that they cannot be talking past each other. The linguistic conventions that govern the use of 'no' is an issue that deserves deeper investigation. Let me note, for the time being, that in everyday discourse, the use of 'no' does not always mean strong contradiction, but sometimes simply marks a divergence in views. The following dialogue, for instance, sounds perfectly fine. Tarek: "I really like this." Inma: "Oh, no, I don't like this at all."

disagreement that arises from a misunderstanding.

### 3 A Contextualist (Implicit Argument) Semantics for Taste Predicates

The goal of section 2 has been to show that under the assumption that utterances containing taste predicates have truth values that depend on something like a taste parameter, we should say that people truly disagree, ie claim contradictory things, only if they intend (and intend their audience to realize that they intend) that the truth of their utterances should be determined relative to the same assignment of value to this parameter. This means that given any particular case of alleged faultless disagreement, the issue of whether it is genuine disagreement or faultless but spurious disagreement is to be decided regardless of how the taste parameter is treated in semantics. Whether it is seen as an implicit argument triggered by a predicate, or as a parameter of the circumstance of evaluation *à la* possible worlds, is a theoretical choice that does not bear on the question of whether there is disagreement and what it is about, let alone explain how there could be such a thing as faultless disagreement.

The goal of the remainder of my paper is to show how taste parameters can be treated equally well as implicit arguments, and then show that "relativist" semantics such as Lasnik's is just a notational variant of the proposed "contextualist" semantics that uses implicit arguments. I will end with a short discussion of advantages and shortcomings of the two accounts.

Before I go into the technicalities, a clarification is in order. Most predicates of taste, such as 'tasty' or 'fun', appear to require at least *two* parameters. One is the taste parameter, and it is this parameter that we are concerned with in this paper. But, as with gradable adjectives in general, the truth value may also vary depending on the relevant comparison class. Hold the taste standards fixed – let it be Mary's – and suppose that she says "Those are tasty" in reference to some oreo-cookies. If she says this at some fancy tea party, where, compared to the rest, the oreo-cookies are the least tasty, we may easily get the intuition that she would be saying something false. But if the relevant alternatives are now only some stale cookies that have laid open in the cupboard for a month, then we will have the intuition that by uttering that same sentence, in reference to the same cookies, she will be saying something true, even though her own taste has not changed. This being noted, in what follows, I am going to ignore the role of comparison class in the semantics of taste predicates.

#### 3.1. Contextualist semantics for taste predicates

Let me now outline a rather ordinary and simple semantic framework, which I will then apply to taste predicates. The target for this framework will be a tiny fragment of English, containing words like 'delicious', 'lousy', 'fun', etc., demonstrative and 3<sup>rd</sup> person pronouns, basic quantifiers (everyone, someone), names, and some basic constructions involving attitude verbs, like 'Tarek thinks that' – though we will ignore the problems raised by expressions other than the taste predicates. The formal language that we will use is just the language of 1<sup>st</sup> order logic with unary doxastic (modal) operators. Metaphysic modalities will be left aside. The only novelty, if one can call it a novelty, is that we will have one

distinguished variable,  $x_T$ , which we will use, and often recycle, for the implicit argument triggered by the taste predicates. For simplicity, let the values assignable to this variable be just ordinary individuals, as with any other variable. The semantics for this language will be just the semantics for polymodal (viz. doxastic) predicate logic. For simplicity, let the universe be constant across possible worlds. Finally, even though we have demonstratives, we will translate them as free variables, so that we do not need anything like Kaplan's character vs. content distinction or two-dimensional semantics. The main tasks of the informal notion of context will be to provide an assignment of values to free variables, and to supply the world at which the content of the utterance is to be evaluated for its truth value.

**Language.**  $L := P_1, P_2, \dots; x_T, x_1, x_2, \dots; \neg, \wedge, \vee, \forall, \exists, B_{Tarek}, B_{Inma}, \dots$

**Syntax.** The rules for the well-formedness of sentences are standard, and I will not bother to spell them out here.<sup>4</sup>

**Semantics.**

$\Sigma$  is a **structure** iff<sub>df</sub> it is of the form  $\langle U, W, R, V \rangle$ , where:

- $U$  is the universe, ie the set of all individuals;
- $W$  is the set of all possible worlds;
- $R = \{R_{Tarek}, R_{Inma}, \text{etc.}\}$ , and for every  $R_j$  in  $R$ ,  $R_j \subseteq W \times W$ . ( $R$  is the set of accessibility relations that we use in the semantics of doxastic operators; for instance, if  $\langle w_1, w_2 \rangle \in R_{Tarek}$ , that means that  $w_2$  is one among Tarek's doxastic alternatives for  $w_1$ .)
- for every  $n$ -place  $P_i$ ,  $V(P_i) \subseteq W \times \wp(U^n)$  and  $\forall w \in W \exists u \in \wp(U^n) V(P_i) = \langle w, u \rangle$ . (This is just a cumbersome way of saying that  $V$  is a valuation that maps any  $n$ -place predicate to a function that maps possible worlds to sets of  $n$ -uples of individuals.)

The truth value of a sentence is defined at a **model**. A model is a triple of the form  $\langle \Sigma, w, f \rangle$ , where  $\Sigma$  is a structure,  $w$  a designated world, and  $f$  an assignment of values to free variables. The truth definition is recursive, as usual:

$\Sigma, w, f \models P_i x_1 \dots x_n$  iff<sub>df</sub>  $\langle w, \langle f(x_1), \dots, f(x_n) \rangle \rangle \in V(P_i)$  (where  $x_T$  may appear as any among the  $x_n$ )

$\Sigma, w, f \models \exists x_i \psi$  iff<sub>df</sub> there is an assignment  $f'$ ,  $f'$  is like  $f$  except at most for  $x_i$ , and  $\Sigma, w, f' \models \psi$

$\Sigma, w, f \models \forall x_i \psi$  iff<sub>df</sub> for every assignment  $f'$ , if  $f'$  is like  $f$  except at most for  $x_i$ , then  $\Sigma, w, f' \models \psi$

$\Sigma, w, f \models B_\alpha \psi$  iff<sub>df</sub> for every  $w'$  s.t.  $\langle w, w' \rangle \in R_\alpha$ ,  $\Sigma, w', f \models \psi$ <sup>5</sup>

$\Sigma, w, f \models \chi \wedge \psi$  iff<sub>df</sub>  $\Sigma, w, f \models \chi$  and  $\Sigma, w, f \models \psi$

$\Sigma, w, f \models \chi \vee \psi$  iff<sub>df</sub>  $\Sigma, w, f \models \chi$  or  $\Sigma, w, f \models \psi$

$\Sigma, w, f \models \neg \chi$  iff<sub>df</sub>  $\Sigma, w, f \not\models \chi$

As one can see from these definitions, the semantics for  $L$  is perfectly standard.

4  $B_{Tarek}$ , etc. are unary doxastic operators; they take a sentence and yield a sentence, exactly as  $\neg$  does.  $P_1$  etc. are predicates with zero, one or more argument places.

5 This is, more accurately, a truth clause *schema*, where  $\alpha$  a meta-variable ranging over (names of) individuals in  $U$ .

### 3.2. Examples

Proposing a formal semantics for a fragment of natural language is something done in two steps. First, a formal machinery is provided, which I have just done, and the machinery is just a toy-logic that should be familiar to most readers. The second step is to propose some sort of translation procedure from natural language to the formal language at stake. We are going to adopt the usual translation procedure: common nouns, like 'cake', are translated by one-place predicates, transitive verbs like 'to bake', by two-place predicates, etc.; the determiner 'everyone' is translated by  $\forall$ , belief expressions such as 'Inma believes that' by doxastic operators  $B_{Inma}$  etc. The novelty resides in the translation of taste predicates. We will translate such adjectives – since we are mainly dealing with adjectives – by two-place predicates, the second and only the second variable of which is  $x_T$ .

How it works can be best seen through a couple of examples.

1. Tarek:        This is tasty.
2. Inma:        No, this is not tasty.

The formula of **L** translating the English sentence 'this is tasty' will be  $TASTY\ x_1\ x_T$ , and for 'this is not tasty', we take, of course,  $\neg TASTY\ x_1\ x_T$ . While these formulas of **L** are open formulas, Tarek's and Inma's utterance are endowed with a truth value. What is further required in order for those formulas to represent natural language utterances are, of course, values for the free variables, and a world of evaluation. Those are not fixed by the meaning of the sentences that Tarek and Inma have uttered, but by the context of utterance. It will be helpful to examine several cases.

Case 1. Consider a context in which Tarek and Inma are expressing their own taste, and are both referring to the same thing, say, a certain cake, call it Choco. Although the sentences uttered are one another's negations, Tarek and Inma do not contradict each other:<sup>6</sup>

3. Tarek:        This is tasty.                     $TASTY\ x_1\ x_T\ [x_1 \rightarrow Choco, x_T \rightarrow Tarek]$
4. Inma:        No, this is not tasty.            $\neg TASTY\ x_1\ x_T\ [x_1 \rightarrow Choco, x_T \rightarrow Inma]$

To get to the truth values of their utterances, we just need to follow the definitions. We get that 3 is true iff the designated world  $w$  paired with the pair  $\langle Choco, Tarek \rangle$  is in the valuation of 'tasty'. That amounts to saying that 3 is true if Choco is tasty to Tarek in the world relevant to determining the truth value of 3 (presumably the actual world). Similarly, 4 is true iff the designated world  $w$  paired with the pair  $\langle Choco, Inma \rangle$  is outside the valuation of 'tasty'. Hence it is perfectly possible that 3 and 4 are true together, i.e. at one and the same possible world.

Case 2. Tarek and Inma are making generic claims, and are both referring to the same thing, say Choco again. They are roughly saying that Choco is tasty to everyone. So now, we have a genuine contradiction:

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<sup>6</sup> I will use the familiar notation ' $x \rightarrow b$ ' to mean that the relevant assignment  $f$  is such that  $f(x)=b$ .

5. Tarek: This is tasty.  $\forall x_T \text{TASTY } x_1 x_T [x_1 \rightarrow \text{Choco}]$   
 6. Inma: No, this is not tasty.  $\neg \forall x_T \text{TASTY } x_1 x_T [x_1 \rightarrow \text{Choco}]$

Following the definitions again, we get that 5 is true iff the designated world  $w$  paired with any pair  $\langle \text{Choco}, b \rangle$ , for any  $b$  in the universe, is in the valuation of 'tasty', that is to say, if Choco is tasty to everyone.<sup>7</sup> Similarly, 6 is true iff the designated world  $w$  paired with at least one pair  $\langle \text{Choco}, b \rangle$ , where  $b$  is some individual, is not in the valuation of 'tasty'. Here, unlike the previous case, it is logically impossible that 5 and 6 could both be true at one and the same world.

Case 3. Tarek and Inma are again making generic claims, but happen to be talking of different things. Tarek is referring to Choco, while Inma is referring to some oreo-cookie:

7. Tarek: This is tasty.  $\forall x_T \text{TASTY } x_1 x_T [x_1 \rightarrow \text{Choco}]$   
 8. Inma: No, this is not tasty.  $\neg \forall x_T \text{TASTY } x_1 x_T [x_1 \rightarrow \text{Oreo}]$

The definitions give us that 7 is true iff the designated world  $w$  paired with any pair  $\langle \text{Choco}, b \rangle$ , with  $b$  any individual, is in the valuation of 'tasty', while 8 is true iff the designated world  $w$  paired with at least one pair  $\langle \text{Oreo}, b \rangle$ , with  $b$  some individual, is outside the valuation of 'tasty'. It takes little to see that 7 and 8 may be true together, so there is no contradiction (which we knew already, since this is a clear case of misunderstanding).

### 3.3. More examples

In the previous cases, the implicit argument  $x_T$  in the taste predicate was either assigned the speaker as its value or was bound by a universal quantifier, under a generic interpretation. Although these interpretations are most common, we should not think that they are the only possible ones. In particular, say, with questions and commands, the value normally assigned to  $x_T$  is the addressee rather than the speaker:

9. Tarek to Inma: Is it tasty?  $[x_1 \rightarrow \text{Choco}, x_T \rightarrow \text{Inma}]$   
 10. Inma to Malika: If it is not tasty, don't eat it.  $[x_1 \rightarrow \text{Oreo}, x_T \rightarrow \text{Malika}]$

Since our formal framework is not equipped to deal with questions, commands or conditionals, we shall not analyze those any further. Suffice it to point out that the value chosen for the taste parameter is the hearer. In 9, Tarek is not expecting Inma to be able to decide whether the cake is tasty for *him*; he is asking her whether *she* finds it tasty. And similarly for 10.<sup>8</sup>

<sup>7</sup> Obviously, since the universe contains inanimate individuals, which have nothing like the taste that humans have – individuals like Choco itself, for instance – this case requires contextual restriction on the domain of quantification. Alternatively, we could stipulate that only animate individuals are in the range of values assignable to  $x_T$ . But contextual restriction is going to be needed anyway, since, more generally, when people disagree making generic claims, all they wish to claim is that such-and-such is tasty for some intended class of people, or for normal people under normal circumstances, or something along these lines. There are different ways of handling contextual domain restriction, and whichever we choose, we should be able to accordingly modify the present framework.

<sup>8</sup> It is hard to find cases of declarative sentences in which the taste argument takes as its value the addressee, rather than the speaker or some larger group. Here a tentative case. Malika goes shopping for clothes for (and

There is another large class of cases in which the implicit taste argument is neither universally bound, nor assigned either the speaker or the hearer as its value. Rather, we get something like an *anaphoric* interpretation: the assigned value is someone previously mentioned. Such anaphoric interpretations occur essentially in the context of reported speech, attitude reports, and similar intensional constructions. Consider these (independent) utterances:

11. Tarek: Inma says that the cake is tasty.  
 12. Malika: Tarek thought that this one was fun. (referring to a certain roller-coaster, say to Invertigo)

On a reading readily available for 11, Inma says that the cake is tasty *for her*; she is expressing her own taste. Of course, there is also a generic reading available for 11, on which Inma is reported as saying that the cake is tasty *in general*. It is difficult to think of a context in which the dominant reading would be the one in which Inma's reported utterance targets Tarek, the speaker of 11, as the value for the taste argument.<sup>9</sup>

In 12, Malika will be probably referring to some particular past event, such as Tarek's ride on Invertigo. The most obvious interpretation, then, is that Tarek thought that Invertigo was fun *for him*. Perhaps precisely because of this reference to a past event, it is very difficult to take 12 to mean that Tarek thought of Invertigo that it was fun *for everyone* – unless 'everyone' is highly contextually restricted, e.g. to everyone on the same ride as Tarek. It is also not obvious how one could get the interpretation on which Tarek thought that Invertigo was fun for Malika.<sup>10</sup>

Regardless of what it takes to get one interpretation rather than another, the lesson to be drawn from 12 is that the interpretation of the implicit taste argument should not be seen as necessarily either speaker-bound or quantified universally. In fact, one of the strengths of the implicit argument approach is precisely its capacity to accommodate a variety of interpretations.

Since we have doxastic operators in **L**, we can propose a formal rendering for this reading:<sup>11</sup>

13. Malika: Tarek thought that this one was fun.  $B_{\text{Tarek}} \text{FUN } x_1 x_T [x_1 \rightarrow \text{Invertigo}, x_T \rightarrow \text{Tarek}]$

Following the definitions, 13 is true at a designated world  $w$  iff for every world  $w'$  related

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with) her teen-age daughter. Malika, of course, does not share her daughter's taste in matters of clothing. Still, she wants to be a cool mother. Pointing to a sweater that she herself does not like, but thinks that her daughter would like it, Malika says: "This is lovely." Here, although we have a declarative sentence, it is plausible to take as the value for the taste argument the daughter's rather than Malika's taste standards. Further evidence for this is that if the daughter answers "No, it's not lovely at all" Malika will be willing to revise her beliefs and retract her initial claim that that sweater was lovely, which she would not have done had she been talking of her own taste.

- 9 A tentative case will be brought up in section 5. But, at any rate, given that the verb 'say' is known to be peculiar, let us not make too much out of example 11.  
 10 Of course, if Malika is referring to her own ride on the roller-coaster with Tarek, we might get something like the first person plural interpretation, on which Tarek thought that Invertigo for fun *for him* and *for Malika*. (Also, recall the example of 13-14 from section 2.2.)  
 11 The rendering does not account for the past tense in 12. If we had tense operators in **L**, we could have done it, but nothing crucial hinges upon this, and simplicity seems preferable to exhaustivity at this stage.

to  $w$  by  $B_{\text{Tarek}}$ , i.e. for all of Tarek's doxastic alternatives for the designated world,  $\langle w, \langle \text{Invertigo, Tarek} \rangle \rangle$  is in the valuation of 'fun'. In other words, if some world in which Invertigo is not fun for Tarek is a world such that Tarek thinks that it might after all turn out to be the actual world, then 13 comes out false.

It is interesting that our framework allows for the case in which it is true in this world that Tarek thinks that Invertigo is fun (for him), yet in which it is also true that Invertigo is actually not fun for Tarek. Weird though it may sound at first, this feature is very welcome, as we have already pointed out in our discussion of the first-person authority with taste predicates. And even if it turned out that the first-person authority holds, this feature is still useful because it allows us to model beliefs of those people who think that they know better than you what is good, tasty or fun for you, people who when you tell them that you don't find something fun will keep insisting that it actually *is* fun for you.

At last, it is worth nothing that such "anaphoric" interpretations, though most easily triggered in the context of attitude reports, do not necessarily require the presence of a sentential operator, but also arise in the vicinity of certain transitive verbs. Consider:

14. Inma:           Malika wants to buy comfortable shoes. / Malika is shopping for comfortable shoes. /  
                          Malika bought comfortable shoes.

In the three cases, the most natural way of understanding Inma's utterance is as saying that Malika wants to buy, is shopping for, or did buy shoes that are comfortable on *Malika's* standards.<sup>12</sup>

#### 4 A Relativist Semantics for Taste Predicates. Outline of Equivalence Results.

I have already argued that even if one simply adopts a relativist semantics for taste predicates, one does not thereby explain how there could be anything like faultless disagreement. Recall one of our working examples, where both Inma and Tarek are talking of the same soybean ice-cream:

1. Tarek:           This is tasty.  
2. Inma:           No, this is not tasty.

In section 2, I argued that if 1 and 2 are both true, then Inma and Tarek do not really disagree. Or conversely, if Inma and Tarek really disagree, then they must intend the truth of their claims to be determined relative to the same value for the taste parameter, which excludes the possibility of their being both right. The claim that if  $x$  and  $y$  disagree then  $x$  and  $y$  are not both right is, I think, sheer common sense that we ought to preserve. Both Kölbel (2004) and Lasersohn (2005) give up this very robust intuition about what it takes to be genuinely

<sup>12</sup> This reading is enhanced by the implicature that Malika was buying shoes for herself. For comparison, suppose that Inma says: "Malika bought *me* some comfortable shoes". Then what we understand is that the shoes are said to be comfortable for Inma. If she found the shoes uncomfortable, she wouldn't say that Malika bought her comfortable shoes, even if the shoes qualify as comfortable on Malika's standards.

disagreeing. Yet neither of them provides an account of the notion of disagreement. Lasersohn, for instance, seems to think that it is enough to define contents as functions of the taste parameter (in addition to the possible world parameter), in order to solve what he calls his "basic problem":

Our Basic problem is that if John says *This is fun* and Mary says *This is not fun*, it seems possible for both sentences simultaneously to be true (relative to their respective speakers), but we also want to claim that John and Mary are overtly contradicting or disagreeing with each other. (2005: page)

I have tried to show that a more careful examination of the data preserves the common sense assumption that if there is genuine disagreement, it cannot be the case that both parties are right. Of course, we can still make room for the intuition that, in some sense, Inma and Tarek *might* both be right. Only, if they are both right, that is because the truth of their claims has been determined relative to different values for the taste parameter. And if the utterances of the disputing parties aim at different values for their truth evaluation, then there is no real disagreement between such parties.

To make the last point clear, compare the taste case (1 and 2) with a case in which Inma in Paris is talking over the phone to Tarek in Marseille, and each one is talking of the place where he or she is, and Inma says "It is raining" while Tarek replies "It is not raining." Here, too, the place plays a role in determining the truth value of the utterance. The two utterances target different places for their truth evaluation, which accounts for the possibility of Inma and Tarek being both right. At the same time, it can still be said that Tarek and Inma are saying opposite things, since Inma is saying that it is raining, and Tarek is saying that it isn't. But it is clear that Inma and Tarek do not contradict each other, since they are talking of different places, those places being relevant to determining the truth values of their utterances.<sup>13</sup> Of course, were they talking of the same place, they would contradict each other. But what if they merely thought that they were talking of the same place? Then they would engage in a disagreement, since each would be taking the other person to be saying something false. However, their "disagreement" would simply boil down to a misunderstanding. And I submit that in talking about matters of taste, people easily fall prey to a misunderstanding that they take to be genuine disagreement.

It is now easy to see why the argument for relativism grounded upon the "basic problem" does not go through. If John intends his own taste to be the truth-maker for his claim that the given roller-coaster is fun, and if Mary takes her own taste to be the truth-maker for her denial that it is fun, then they do not really disagree, not any more than they are when Inma says and Tarek denies that it is raining, but Tarek's utterance is about Marseille and Inma's, about Paris.

On the other hand, if John takes the truth-maker for his claim that the roller-coaster is fun

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<sup>13</sup> When I first made this point, in spring 2005, François Recanati was trying to dismiss the analogy that I had brought up between "faultless disagreement" on taste issues and "contradictory" weather statements made with respect to different locations. But now, Recanati himself seems to be making the same point, and is using the analogy to argue that relativism à la Kölbel and Lasersohn does not provide an explanation of how there can be such a thing as faultless disagreement. See Recanati (ms. in progress).



to be *the taste of people in general*, and if the same universal taste standards are also intended by Mary to establish the truth of her denial that it is fun, then they disagree indeed. However, their utterances will not be both true, and it might take an empirical investigation – perhaps a survey of people's appreciations of the given roller-coaster – to determine who is right.<sup>14</sup>

At any rate, even if we take for granted relativist semantics for taste predicates, all the cases of alleged faultless disagreement crystallize either into a case of genuine disagreement, with one of the parties claiming something false, or into a case of misunderstanding, with both parties expressing truth. Once we see this, we will also see that the question of whether the taste parameter, required for determining the truth value, is to be put on a par with the possible world parameter, or rather to be accounted for by means of an implicit argument triggered by the taste predicate, must be settled by considerations independent from the chosen account of disagreement.

#### 4.1. Relativist semantics for taste predicates

Let us now consider the relativist sibling of the contextualist semantics from the last section. The framework that follows is pretty much like the one provided by Lasersohn (2005), except for some minor differences.<sup>15</sup> I will go through the very same examples as those discussed in the last section. The consideration of examples should already give you an idea as to why the two frameworks are equivalent, given that they will never predict different truth values for the same utterance. I will then give a translation procedure between the two formal languages, and demonstrate the equivalence. In fact, what I will do is adapt to the present case a known result, which shows the equivalence between monadic predicate logic and S5 propositional modal logic, and can be found in virtually any textbook on modal logic.

Roughly, the difference between the two accounts is that what a contextualist translates by a 2-place predicate one of whose argument is occupied by the taste variable  $x_T$ , a relativist will translate by a 1-place predicate. But on the semantic side, the interpretation of such a one-place predicate provided by a structure of interpretation  $\Sigma$  is not simply a mapping from possible worlds to sets of individuals, the way it works in the implicit argument approach.

14 To determine whether something is fun for people *in general*, a survey will work only if we assume the 1<sup>st</sup> person authority, that is, if we assume that everyone is the best placed person to know what is fun for him or her. Recall, though, that this is not imposed by the semantics, either relativist or contextualist, considered here. It could happen that when asked "Is this fun?" everyone or almost answers "yes", while in reality (the reality of a given model, i.e. structure, designated world and assignment function), the thing at stake is not fun for anyone.

15 A major difference is that we, unlike Lasersohn, have a universal operator on the taste parameter,  $\square$ , more on which will be said below. Another is that Lasersohn also has in the formal language a class of predicate modifiers 'for  $\alpha$ ' (where  $\alpha$  is a constant, e.g. one that translates a proper name like 'Tarek'), and which are meant to translate complex expressions such as 'tasty for Tarek'. On the semantic side, 'for Tarek' works there as a rigidifier: it makes the semantic value of 'tasty for Tarek' a constant function in the taste parameter, whose value, for any other individual, is the same as the value that 'tasty' alone takes when given Tarek as its argument. In  $\mathbf{L}$ , what translating the expression 'for  $\alpha$ ',  $\alpha$  a constant, would come down to, is making explicit the second argument of 'tasty', which, when *implicit*, is taken account of through the taste variable  $x_T$ . Since, for the sake of simplicity, I have made  $\mathbf{L}$  a language without individual constants, the relativist language that I will look at is one without 'for'. Nothing important hinges on this, and it is a boring but easy exercise to construe extensions of  $\mathbf{L}$  and of  $\mathbf{L}_{rel}$  that make room for 'for', while remaining equivalent.

Rather, it is a mapping from *pairs* ⟨possible world, individual⟩ to sets of individuals.

**Language.**  $\mathbf{L}_{rel} := P_1, P_2, \dots; x_1, x_2, \dots; \Box, \neg, \wedge, \vee, \forall, \exists, B_{Tarek}, B_{Imma}, \dots$

**Syntax.** The usual rules for well-formed formulas.

**Semantics.**  $\Sigma$  is a **structure** iff<sub>df</sub> it is of the form  $\langle U, W, R, V \rangle$ , where:

- $U$  is the universe, ie the set of all individuals;
- $W$  is the set of all possible worlds;
- $R = \{R_{Tarek}, R_{Imma}, \text{etc.}\}$ , and for every  $R_j$  in  $R$ ,  $R_j \subseteq W \times W$ . (That is,  $R$  is the set of doxastic accessibility relations, as before);
- For every  $n$ -place  $P_i$ ,  $V(P_i) \subseteq W \times U \times \wp(U^n)$  and  $\forall w \in W \forall b \in U \exists u \in \wp(U^n) V(P_i) = \langle w, b, u \rangle$ . (Again, this is a complicated way of saying that  $V$  is a valuation that maps any  $n$ -place predicate to a function that maps pairs of a possible world and an individual to sets of  $n$ -uples of individuals.)

The **truth** of a sentence is defined at a **model**, which is now a quadruple  $\Sigma, w, b, f$ , where  $\Sigma$  is a structure,  $w$  a designated world,  $b$  a designated individual (or if you prefer, a designated "judge"), and  $f$  an assignment of values to free variables. The truth definition is recursive, as usual:

$\Sigma, w, b, f \models P_j x_1 \dots x_n$  iff<sub>df</sub>  $\langle w, b, \langle f(x_1), \dots, f(x_n) \rangle \rangle \in V(P_j)$

$\Sigma, w, b, f \models \exists x_i \psi x_i$  iff<sub>df</sub> there is an assignment  $f'$  s.t.  $f'$  is like  $f$  except for  $x_i$ , and  $\Sigma, w, b, f' \models \psi x_i$

$\Sigma, w, b, f \models \forall x_i \psi x_i$  iff<sub>df</sub> for every  $f'$  s.t.  $f'$  is like  $f$  except for  $x_i$ , we have  $\Sigma, w, b, f' \models \psi x_i$

$\Sigma, w, b, f \models B_\alpha \psi$  iff<sub>df</sub> for every  $w'$  s.t.  $\langle w, w' \rangle \in R_\alpha$ ,  $\Sigma, w', b, f \models \psi$

$\Sigma, w, b, f \models \Box \psi$  iff<sub>df</sub> for every  $b'$ , we have  $\Sigma, w, b', f \models \psi$

$\Sigma, w, b, f \models \chi \wedge \psi$  iff<sub>df</sub>  $\Sigma, w, b, f \models \chi$  and  $\Sigma, w, b, f \models \psi$

$\Sigma, w, b, f \models \chi \vee \psi$  iff<sub>df</sub>  $\Sigma, w, b, f \models \chi$  or  $\Sigma, w, b, f \models \psi$

$\Sigma, w, b, f \models \neg \chi$  iff<sub>df</sub>  $\Sigma, w, b, f \not\models \chi$

As one can see from the definitions above, the semantics for  $\mathbf{L}_{rel}$  is perfectly standard. As in the case of  $\mathbf{L}$ , it is basically the usual semantics for polymodal predicate logic. Furthermore, it is a two-dimensional modal logic, since in addition to the possible world parameter  $w$ , we have the taste parameter  $b$ , with respect to which truth is recursively defined. The only expression in the formal language that really makes use of the recursiveness on this parameter is the *universal taste operator*  $\Box$ , which we will use to translate *generic* taste claims. Note, though, that the truth clause for this operator does not deploy any accessibility relations.<sup>16</sup>

## 4.2. Examples

As noted earlier, predicates of taste are translated in  $\mathbf{L}_{rel}$  as 1-place predicates, as we

<sup>16</sup> In Lasersohn's paper, it is not clear whether or not he would acknowledge at all the generic readings of claims about taste – readings on which claiming that something is fun is to claim that it is *universally* fun. And if he would, then it is unclear how he could account for those readings in his formal system, since he has no operator like  $\Box$ .

normally translate adjectives in the language of first order logic. However, unlike taste-insensitive properties such as being female or being 5 feet tall, the interpretation function will associate a taste predicate with different sets of things given different individuals. Let us see how this works using our previous examples.

3. Tarek: This is tasty.  
 4. Inma: No, this is not tasty.

The formula of  $L_{rel}$  translating the English sentence 'this is tasty' will be  $TASTY\ x_1$ , and for 'this is not tasty', we take  $\neg TASTY\ x_1$ . Those formulas of  $L$  have no truth value, whereas Tarek's and Inma's utterances do. What is further required is, of course, a value for the free variable  $x_1$ , a world of evaluation, as well as an "individual of evaluation". This, again, is not fixed by the meaning of the sentences that Tarek and Inma have uttered, but varies with the context. Several cases are to be considered.

Case 1. Tarek and Inma are expressing their own taste, and are both referring to the same thing, say, cake Choco. Although the sentences uttered are one another's negations, Tarek and Inma do not contradict each other:

5. Tarek: This is tasty.  $TASTY\ x_1 [x_1 \rightarrow Choco]$  (b:= Tarek)<sup>17</sup>  
 6. Inma: No, this is not tasty.  $\neg TASTY\ x_1 [x_1 \rightarrow Choco]$  (b:= Inma)

To get to the truth values of their utterances, let us follow the definitions. We get that 5 is true iff the designated world  $w$  paired with Tarek and then with Choco is in the valuation of 'tasty' – that is to say, if Tarek finds Choco tasty in the actual world. Similarly, 6 is true iff the designated world  $w$  paired with Inma and then with Choco is outside the valuation of 'tasty'. Hence it is perfectly possible that 5 and 6 are true together, at the same world.

Case 2. Tarek and Inma are making generic claims, and are both referring to Choco. They roughly say that Choco is tasty to everyone, and are now in genuine contradiction:

7. Tarek: This is tasty.  $\Box TASTY\ x_1 [x_1 \rightarrow Choco]$   
 8. Inma: No, this is not tasty.  $\neg \Box TASTY\ x_1 [x_1 \rightarrow Choco]$

The definitions give us that 7 is true iff the designated world  $w$  paired with any individual  $b$ , and then with Choco, is in the valuation of 'tasty', that is to say, if Choco is tasty for everyone. Similarly, 8 is true iff the designated world  $w$  paired with at least some individual  $b$ , and then with Choco, is outside the valuation of 'tasty'. Here, unlike the previous case, it is logically impossible that 7 and 8 are both true at the same world.

Case 3. Tarek and Inma are again making generic claims, but happen to be talking of different things. Tarek is referring to Choco, while Inma is referring to some oreo-cookie:

9. Tarek: This is tasty.  $\Box TASTY\ x_1 [x_1 \rightarrow Choco]$   
 10. Inma: No, this is not tasty.  $\neg \Box TASTY\ x_1 [x_1 \rightarrow Oreo]$

<sup>17</sup> I use the notation 'b:= Tarek' to mean that the value of the parameter  $b$  (the taste parameter) has been set to Tarek.

The definitions give us that 9 is true iff the designated world  $w$  paired with any individual  $b$  and then with Choco is in the valuation of 'tasty', while 10 is true iff  $w$  paired with some  $b$  and then with Oreo is outside the valuation of 'tasty'. Clearly, 9 and 10 may be true together, hence Tarek and Inma are not contradicting each other.

### 4.3. More examples

So far,  $L$  and  $L_{rel}$  with their respective semantics show no other differences than notational ones. The truth values that they predict in the three paradigmatic cases considered so far are exactly the same. As one last example, let us take up a case where the intended judge is neither the speaker nor the "universal" judge – that is, a case where we have something like an anaphoric interpretation, arising with a belief report:

11. Malika: Tarek thinks that this one is fun. (referring to a certain roller-coaster, say to Invertigo)

As we have noted earlier, there are two plausible readings of 11, one that roughly says that Tarek thinks that Invertigo is generally fun, that is, fun for everyone, and another one that roughly says that Tarek thinks that Invertigo is fun *for him*.<sup>18</sup> It is extremely difficult to understand 11 as saying that Tarek thinks that Invertigo is fun specifically for Malika, the speaker.

Let us see how we can handle the two readings in the relativist framework provided above. The generic reading is fairly straightforward:

12. Malika: Tarek thinks that this one is fun.  $B_{Tarek} \Box_{FUN} x_1 [x_1 \rightarrow Invertigo]$

Following the definitions, 12 is true iff all among Tarek's doxastic alternatives for the designated world, paired with any individual, and then paired with Invertigo, are in the interpretation of 'fun'.

As for the "anaphoric" reading of 11, several options are available to the relativist. One, which is closest to the analysis given within the contextualist account, would be to account for the evaluation at the reportee rather than the reporter as involving some kind of context-shift, presumably triggered by the doxastic operator. Let me explain. The formal analysis of 11 will be as follows:

13. Malika: Tarek thinks that this one is fun.  $B_{Tarek} FUN x_1 [x_1 \rightarrow Invertigo]$

Now what is the truth value of 13? The definitions give us that 13 is true iff every among Tarek's doxastic alternatives for the designated world, paired with the designated judge, and then with Invertigo, is in the interpretation of 'fun'. But the question becomes, who is *the designated judge*? What the relativist should say is that this question is settled by the context, in the same way in which the questions of which is the designated world, which is the designated time, or which are the things actually referred to, are settled by the context. Most often, the designated judge will be the speaker – the speaker might be something like a

<sup>18</sup> This example is slightly different from 14 – *Tarek thought that this one was fun* – considered in the last section. There, the sentence was in the past tense, which is what made the generic interpretation difficult to get.

*default value* for the taste parameter. But just as it may happen that an utterance gets evaluated at a time or a place different from the time and the place of utterance, the utterance may get evaluated at some individual other than the speaker.<sup>19</sup> Compare with the case of 'local'. In the default case, 'local' will be understood as *local to here*, i.e. to the place of utterance. But sometimes we will understand 'local' as meaning local to some other contextually salient place. Consider:

14. Malika spends her Friday nights in a local bar.

To be sure, as it stands, 14 definitely has a reading on which the bar in question is nearby the place of utterance. But if 14 is uttered, say, in Paris, and Malika lives in Missoula and hardly ever travels, and if this is common knowledge in the context of the 14, then the dominant reading for 14 is one according to which Malika spends her Friday nights in a bar *local to where she lives*. So 14, if analysed with the relativist's eye,<sup>20</sup> would involve some sort of context-*shift* from the context whose designated place is the context of utterance of 14 (=Paris) to a context whose designated place is Malika's home (=Missoula). Similarly, one could suggest that in 13, we have a context-shift from the context whose designated judge is the speaker to a context whose designated judge is Tarek. This context-shift is presumably triggered by the doxastic operator, and this is not very surprising, since the phenomenon of context-shifting is known to occur most often in the vicinity of attitude verbs.<sup>21</sup> So, the semantic analysis that we get for 13 is that it is true iff any among Tarek's doxastic alternatives paired with Tarek (the judge), and then *Invertigo*, is in the interpretation of 'fun'. Again, this is the same truth value as the one predicted by **L** and its contextualist semantics, the one that takes 'fun' to involve an implicit argument for taste.

But there is an alternative analysis available for this reading of 13. In the previous account, the choice of Tarek (the reportee) as the relevant judge of evaluation was entirely handled by pragmatic means: nothing in either the syntax or the semantics of the sentence uttered was appealed to in the story about the context-shift. But one might want to see the doxastic expression "Tarek believes that" as somehow responsible for the choice of Tarek as the relevant individual for the evaluation of 'fun'. One way of doing this would be to redefine the semantics of doxastic operators in such a way as to make them operate not only on the world dimension, but also on the taste dimension. The truth clause would then go roughly like this:

$$\Sigma, w, b, f \models_{\alpha} \psi \text{ iff}_{\text{ar}} \text{ for every } w' \text{ s.t. } \langle w, w' \rangle \in R_{\alpha}, \Sigma, w', \alpha, f \models \psi$$

The problem with this approach is that doxastic operators would then *always* set the taste parameter at the reportee, a prediction which does not seem to fit the data best. For, beside the often available reading where a generic belief is being reported (eg that a given roller-coaster

19 See Predelli (2005: 53-56) for examples of evaluation at a time and a possible world that are different from the time and the world in which the utterance is taking place.

20 Of course, if 'local' is analyzed by means of implicit arguments, to begin with, the relevant place will be assigned to some free variable in the same way in which the referents are assigned to free variables that stand for demonstratives and 3<sup>rd</sup> person pronouns.

21 See e.g. Recanati (2003) for discussion.

is fun *for everyone*), it seems possible to use a taste predicate aiming at a designated judge different from the reportee, even if the predicate is inside a belief report. For example, if you and I are trying to decide which roller-coaster to ride on, I might tell you: "Tarek has been on all of them. He told me that we should go to this one. He thinks that it will be fun." If Tarek is not with us and is not going to ride again on that roller-coaster, it is plausible to take me as reporting Tarek as thinking that the roller-coaster will be fun *for you and me*. To be sure, the future tense enhances this reading. But if this is the right reading, then it is not a good idea to make the doxastic operator systematically affect the taste parameter. (Of course, one could have in the formal languages two doxastic operators, one that operates on the taste parameter in the way stated in the truth clause above, and one that does not. But then, the verb "think" would come out as ambiguous, which we had better avoid.)

#### 4.4. Equivalence

To show the equivalence between  $\mathbf{L}$  and  $\mathbf{L}_{rel}$ , all we really need is define a translation procedure between the two languages. This is made easy by the fact that  $\mathbf{L}$  contains a distinguished variable  $x_T$ , and also, that we do not have any accessibility relations on the taste dimension.<sup>22</sup>

Here is a proposed translation  $T$  that takes  $\mathbf{L}_{rel}$ -formulas to  $\mathbf{L}$ -formulas:

$$T(P_{x_1 \dots x_n}) = P_{x_1 \dots x_n x_T}$$

$$T(\neg\chi) = \neg T(\chi)$$

$$T(\phi \wedge \chi) = T(\phi) \wedge T(\chi); \text{ idem for } \vee$$

$$T(\forall x_i \psi_{x_i}) = \forall x_i T(\psi_{x_i}); \text{ idem for } \exists$$

$$T(B_\alpha \psi) = B_\alpha T(\psi)$$

$$T(\Box \psi) = \forall x_T T(\psi).$$

Only in the first and in the last line is there something interesting going on. Remember that  $\mathbf{L}_{rel}$  handles the dependence of taste predicates on individuals by means of an additional parameter in the definition of truth.  $\mathbf{L}$ , on the other hand, leaves that parameter out, but it has an additional argument place in every taste predicate. That is what the translation function  $T$  reflects. In fact,  $T$  opens a new argument place in every predicate, be it a taste predicate or not. For the latter, though, this argument will be idle – one wouldn't even need to assign a value to  $x_T$ . What  $T$  does, too, is translate  $\Box$ , the universal modal operator on the taste dimension, by the universal quantifier on the taste variable  $x_T$ .

In the other direction, here is a proposed translation  $Tr$  that takes  $\mathbf{L}$ -formulas to  $\mathbf{L}_{rel}$ -formulas:

$$Tr(P_{x_1 \dots x_n x_T}) = P_{x_1 \dots x_n}$$

$$Tr(\neg\chi) = \neg Tr(\chi)$$

$$Tr(\phi \wedge \chi) = Tr(\phi) \wedge Tr(\chi); \text{ idem for } \vee$$

$$Tr(\forall x_i \psi_{x_i}) = \forall x_i Tr(\psi_{x_i}), \text{ for } x_i \neq x_T; \text{ idem for } \exists$$

<sup>22</sup> Even if we had accessibility relations on the taste parameter, that would be only a minor complication. In what follows, I am just rehearsing some known results from modal logic. See eg van Benthem (83), p. 40 ff.

$$Tr(\forall x_T \psi_{x_T}) = \Box Tr(\psi)$$

$$Tr(\exists x_T \psi_{x_T}) = \neg \Box \neg Tr(\psi)$$

$$Tr(B_\alpha \psi) = B_\alpha Tr(\psi).$$

The following equivalences are pretty much obvious, and anyone not immediately convinced is invited to verify them by induction of the complexity of  $\psi$ :

$$\text{claim 1: } \Sigma, w, b, f \models_{\text{Lrel}} \psi \quad \text{iff} \quad \Sigma, w, f [x_T \rightarrow b] \models_{\text{L}} T(\psi)$$

$$\text{claim 2: } \Sigma, w, f \models_{\text{L}} \psi \quad \text{iff} \quad \Sigma, w, f(x_T), f \models_{\text{Lrel}} Tr(\psi)$$

## 5 To Be or Not To Be the Value of a Variable

This paper is primarily concerned with taste predicates. But if some of my main points are correct, then the present discussion may end up reaching further than that. For example, it would show that the question of how to treat the location parameter (as an implicit argument vs. as a dimension of the circumstance of evaluation) is similarly a matter of theoretical decision. To make the point, let us consider an example. Suppose that Malika in Paris says:

1. It is raining.

Both the relativist and the contextualist will agree that the truth *value* of her utterance of 1 depends on whether or not it is raining *in Paris* at the given time. What they will disagree on is the question of how Paris affects the truth of 1. The contextualist would say: by being the value assigned to a free variable  $x$  that ranges over locations and is the argument of the predicate '(to) rain'. The formal rendering of 1 would be:  $\text{RAIN } x$  (ignoring the questions of tense and mood). The relativist, on the other hand, would have no location variable in her formal rendering of 1, insisting that the verb 'to rain' does not come with such an argument place. The truth-conditional content of 1, the relativist might say, is location-neutral, and its truth varies as the locations at which it is evaluated vary. But, though the content is location-neutral, it will only return a truth value when applied to a specific place, and that is how 1's truth gets to depend on Paris. On this analysis, the formal rendering of 1 is simply  $\text{RAIN}$ , which is a 0-place predicate, but on the semantic side, this predicate gets evaluated not only at a world and a time, but also at a location.

Now, the goal of the last two sections has been to show that these two *prima facie* conflicting views are not really that different. They work quite in the same way, and they give the same truth value predictions. What one achieves by adding an argument-place to the predicate that translates 'rain', the other does by making room for a new parameter in the series of parameters used in the definition of truth. This means that the semantic data, that is, data regarding the truth values that competent speakers assign to utterances (under accurate descriptions of the context and the world) are of little use in deciding which account to opt for. But if such semantic data are of little or no use, then what kind of data or considerations should one appeal to in defending one analysis over the other? That is the question that I want to raise in this last section.

It is not difficult to see that for some purposes, one analysis may be more convenient than

the other. If one has a specific implementation in mind, one may be more at ease using this or that account. If it turned out, for example, that our language contains expressions that involve several taste values, then the implicit argument analysis might be more attractive, because variables are usually good devices to keep track of "what goes where". Or, if it turned out that the truth clause of virtually any given expression involves a certain parameter, and that the value of this parameter seldom varies within a single sentence, then a relativist framework would seem more attractive. So what I want to do now is to look at two considerations that, at a first glance, appear to tell against the implicit argument approach, but we will see that those considerations are far from being conclusive.<sup>23</sup>

### 5.1. The Argument from What Is Said

It is often believed that the implicit argument account in the case of taste commits you to a wrong construal of the notion of what is said. Let me explain the problem on an example. Consider:

2. This is delicious.

Suppose that Tarek utters 2 talking of the chocolate cake, and that it is clear that he means to be expressing his own taste. For instance, if someone challenged him, Tarek would reply: "All I meant to be saying is that it is delicious for me." The relativist and the contextualist formal representations for Tarek's utterance of 2 will be roughly as follows:

- 2.1: DELICIOUS  $x_1$  [ $x_1 \rightarrow$  Choco] (b:= Tarek)  
 2.2: DELICIOUS  $x_1 x_T$  [ $x_1 \rightarrow$  Choco,  $x_T \rightarrow$  Tarek]

Now suppose that Inma utters 2, in reference to the same chocolate cake, and is also clearly talking of herself (i.e. her taste). The representations that we get are:

- 2.3: DELICIOUS  $x_1$  [ $x_1 \rightarrow$  Choco] (b:= Inma)  
 2.4: DELICIOUS  $x_1 x_T$  [ $x_1 \rightarrow$  Choco,  $x_T \rightarrow$  Inma]

Finally, suppose that Tarek again utters 2, but that he is now talking of some oreo-cookie. Then we have:

- 2.5: DELICIOUS  $x_1$  [ $x_1 \rightarrow$  Oreo] (b:= Tarek)  
 2.6: DELICIOUS  $x_1 x_T$  [ $x_1 \rightarrow$  Oreo,  $x_T \rightarrow$  Tarek]

The question is: what did Tarek and Inma say? And the plausible answer is that what Tarek, on the first occasion, and Inma said is just that the chocolate cake is delicious, and what Tarek said on the second occasion is that the oreo-cookie was delicious.

The "collective" report that Inma and Tarek both said that the cake was delicious suggests

<sup>23</sup> Ideally, one should consider the case of taste predicates in light of all the literature on implicit arguments (for example, Partee (1989), Condoravdi and Gawron (1996), Gillon (forthcoming)), but the paper would grow out of proportions if we were to do it here. Furthermore, I do not think that such considerations would have any major impact on the two main points of my paper, namely, that the account of faultless disagreement is independent from the choice between a relativist vs. a contextualist account of taste predicates (section 2), and that the two accounts make the same truth predictions and are therefore semantically equivalent (sect. 4).



that Inma and Tarek *said the same thing*. By contrast, a tentative report of Tarek's two utterances of 2, that Tarek first and then again said that this was delicious, when he was talking of different things, the chocolate cake and the oreo-cookie, does not seem to work, which suggests that on the two occasions, Tarek *said different things*.

If these are indeed the data that ought to be accounted for, then they are supposed to be a problem for the implicit argument approach because, when you look at the two pairs of utterances, Tarek's first and Inma's, on the one hand, versus Tarek's first and Tarek's second utterance, on the other, they appear to be symmetrical. Indeed, 2.2. and 2.4. only differ on the value assigned to the variable  $x_T$ , while 2.2. and 2.6. similarly differ only on the value assigned to the variable  $x_1$ . By contrast, the relativist will say that this is not a problem for his or her account, because what is said would be the taste-neutral content, of which the value of the taste parameter is not part, while the values assigned to the variables are. And it takes little to see that such taste-neutral contents for 2.2. and 2.4. are the same, namely  $\text{TASTY } x_1 [x_1 \rightarrow \text{Choco}]$ , while those for 2.2. and 2.6. are different.

We ought not dismiss so easily the question of how well a given semantic account, that is, an account of meaning and truth-conditions, extends into an account of *what is said*.<sup>24</sup> Yet, it is not clear that the foregoing considerations cut sharply in favor of the relativist account, or undermine the implicit argument account. It is beyond the scope of this paper to provide a detailed argument, so let me simply outline the solution to this problem of what is said.

In other places, I have argued that if we want to have a technical notion of what is said that will account both for the intuitive notion of what is said and for the use of the locution 'what is said' (and for indirect discourse reports more generally), then it is best to identify what is said with linguistic meaning; that is to say, what is said is closer to the *character* rather than to the *content*, in Kaplanian terms.<sup>25</sup> This leads to the view that what Tarek said when he uttered 2 first with respect to the chocolate cake and then in reference to the oreo-cookie is indeed the same. If we ignore the taste parameter for the moment, then what he said will be, roughly, the property of being delicious, or the propositional function that, given an object, returns the proposition that this object is delicious, or whatever you take to be the content of the open sentence  $\text{DELICIOUS } x_1$ .<sup>26</sup> The intuition that he said different things is explained by the fact that Tarek was *speaking of* different things, the cake vs. the cookie. In sum, Tarek said the same thing *about* different things. The fact that he was talking about different things also explains why the simple report that on the two occasions Tarek said the same thing appears to be bad. The reason is that when we report what is said as being the same, we normally assume that it was said or asserted about one and the same thing. With this assumption in place, the discourse report turns out indeed to be incorrect. But note that if we make it explicit what

24 Many people have argued, though, that the notions of semantic content and of what is said are quite independent. In the recent literature, see e.g. Borg (2004) or Cappelen and Lepore (1997).

25 See e.g. Stojanovic (2006) and (forthcoming).

26 For the sake of simplicity, I continue to ignore the question of whether the word 'this' contributes to the meaning (and thereby to what is said) anything more than the mere place-holder (in guise of the variable  $x_1$ ), as would be, say, the conditions of being salient and proximal, presumably lexically encoded in the demonstrative. I discuss this question at length in Stojanovic (2005), but the issue is not of major relevance to the present discussion.

Tarek was talking about on each occasion, the report becomes correct: "Tarek said the same thing twice, namely that a certain thing was delicious; he first said it about the chocolate cake, and later on, about the cookie."

If we start with an account of what is said along the lines just outlined, an account motivated by independent considerations, then what remains to be explained is why when we truly report Tarek and Inma as having said the same thing, when Tarek is expressing his own taste and Inma her own, we do not need to make it explicit whose taste each was talking about. But the same phenomenon can be observed more generally with the cases in which what one is talking about is oneself, or one's present situation. Consider:

3. I love roller-coasters.

Suppose that Tarek utters 3, and then Inma, on some later occasion, utters that same sentence. Then one can truly reply to Inma: "Tarek said that, too." To be sure, the reply as it stands is ambiguous between reporting Tarek as having said that Inma loved roller-coasters vs. that he himself loved roller-coasters. With enough contextual background, the latter, "*de se*" report will be dominant, and note that there, we don't have to make it explicit that Tarek was talking of himself.

The general rule thus appears to be that when a given speaker, say John, is talking of himself, and you report another speaker, say Mary, as having said the same thing, we assume that Mary was talking either of the same thing as John (hence of John himself), or that she was talking of herself. With this assumption in place, we can straightforwardly account for the fact that when Tarek, talking of himself and referring to the chocolate cake say "This is delicious", and when Inma, talking of herself and of the same cake, utters the same sentence, not only have they said the same thing, but it is also correct to report them as having done so, without having to point out that different values for the taste parameter are relevant to the truth of what they are saying.<sup>27</sup>

## 5.2. The Arguments from Binding and Shiftability

It is a view held by many that the presence of a variable in the formal representation for a natural language sentence requires that there be expressions in the language that *bind* this variable, and is motivated by the existence of such expressions. Jason Stanley, for instance, relies on this view to argue that there is an argument for the location triggered by the verb '(to) rain', the idea being that without such a variable, it is not clear how one could interpret "Everywhere it is raining," since there would be nothing for the quantifier 'everywhere' to

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<sup>27</sup> One might object that this cannot be the end of the story, because, when Inma utters 2, and someone replies to her, "That's what Tarek said, too", the reply does not seem to be ambiguous: the reading on which Tarek would have said that *according to Inma's taste*, the cake was delicious, is practically unavailable. The best reply to the objection, I think, is that the unavailability of this reading is a pragmatic matter. We don't get this reading because it is very unlikely that Tarek would have been making any statement about Inma's taste. What corroborates the pragmatic explanation is that if Tarek had said, say, "Inma is going to love this chocolate cake", and Inma then says indeed that the cake is delicious, someone can truly reply to Inma "You know, that's what Tarek told me." At any rate, it would take us too far to examine in detail our practice of reporting what is said with in cases involving taste predicates.

bind. However, section 4 shows that this argument from binding is not quite correct. To be sure, its target was the view that the location of rain in the simple sentence 'It is raining' is an *unarticulated* constituent.<sup>28</sup> But, whether or not the binding argument shows that this location must be articulated at some level of the semantic analysis, it does not cut between accounts on which the location is articulated by being the value of a variable, or of an implicit argument, associated with the verb 'rain', and accounts on which it is articulated by being the value of a parameter of the circumstances of evaluation.<sup>29</sup>

Now, there is a related view, also held by many, which holds that the presence of a parameter in the circumstances of evaluation is motivated by and requires that there be sentential operators, that is, expressions that syntactically take a sentence and return a sentence, whose truth clause involves this parameter in a non-trivial way. For instance, the motivations for the possible world parameter in the circumstances of evaluation would be tightly linked with the semantics of expressions such as 'it is necessary that' and 'it is possible that'.<sup>30</sup>

At any rate, the two arguments – from binding, if one defends the implicit argument approach, and from shiftability, if one is a relativist, go in the same direction. The point is that in either approach, one had better look for expressions that either bind or shift (depending on the approach) the taste argument or the taste parameter. But are there such expressions? And are there related considerations that tell in favor or against either approach?

As to whether there are such expressions, we have arguably already encountered some. Consider:

4. Everyone thinks that this is delicious.

If we set aside the generic reading for 'delicious', on which 4 roughly means that everyone thinks that the cake is delicious according to some universal taste standards, the only other plausible reading is the one on which the value for the taste argument or parameter varies with the individuals over which the quantifier 'everyone' ranges. The formal representation for this reading of 4, on the contextualist account, will roughly be:<sup>31</sup>

$$\forall x_1 \exists x_T (x_1 = x_T \ \& \ x_1 \text{ THINKS THAT (TASTY } x_2 \ x_T)) [x_2 \rightarrow \text{Choco}],$$

and on the relativist account, with  $B_{\square}$  the universal operator that translates 'everyone thinks that', the representation will be::

28 The view originated in Perry (1986) and was defended by Recanati, who became Stanley's main target. For different replies to Stanley's argument, see e.g. Recanati (2002) and Predelli (2005).

29 In the latter view, the location is articulated in the sense that the semantic representation itself, given the background of circumstances of evaluation that will include a location dimension, *calls for* the location value. This would imply that the possible world relevant to determining the truth value of the utterance is also "articulated" in this sense. This contrasts with the way in which Recanati, Stanley's main target, takes unarticulated constituents to enter the truth-conditional content and affect the truth value; namely, they always result from optional, semantically unconstrained pragmatic processes, such as what Recanati calls "free enrichment".

30 For this criterion of shiftability, see Lewis (1980:  $\_$ ) and Kaplan (1977:  $\_$ ).

31 It is in order to keep consistent with the conventions adopted in section 3 that I am opting for the more complex translation over this simpler but equivalent one:  $\forall x_1 (x_1 \text{ THINKS THAT (TASTY } x_2 \ x_1)) [x_2 \rightarrow \text{Choco}]$ .

$B_{\square} \text{TASTY } x_2 [x_1 \rightarrow \text{Choco}]$ ,

but the truth clause for  $B_{\square}$  will non-trivially involve the taste dimension as well as the world dimension.<sup>32</sup>

The universal shifting/binding of the taste parameter/argument can also be spotted in the following example, which need not be discussed in greater detail:

5. This is delicious for everyone.

Let me now turn to the question of whether any considerations of this sort make either account more attractive than the other. If we consider explicit arguments, such as pronouns, and some arguably implicit arguments, such as the location argument associated with 'local', we will notice that such an argument may, but need not, be bound by the closest expression in whose scope it lies. Consider the following:

6. Every students thought that every professor said that he was smart.

7. In every city she went to, Inma liked to go a local bar.

8. After she moved out of Paris, in every city she lived in, Inma was nostalgic for a local bar.

In 6, 'he' can be bound just as well by 'every student' as by 'every professor', and it depends on the context which reading will be most readily available. Similarly, the location argument associated with 'local' may be bound by a quantifier phrase in whose immediate scope it lies, as in the case of 7, but it does not have to, as in the case of 8, which, in the context imagined, we take to mean that in all the cities that Inma lived in, she was nostalgic for a bar *local to Paris*. The question is now whether, assuming that there are expressions that can bind the taste argument, we can come up with cases in which this argument will *not* be bound by the closest expression in whose scope it lies. If we cannot have such cases, that might score a motivation point for the relativist account.

I think that, with some effort, we can devise cases of this sort, even if they might not be entirely convincing. But consider:

9. Tarek told us that Inma thought that the roller-coasters would be fun.

Suppose that Tarek was going to EuroDisney for the first time, and that we are talking about his trip. Furthermore, suppose it is common knowledge among us that Inma, who had previously been to EuroDisney, was not going with him. Then what Inma is reported to have thought, according to what Tarek told us, is, roughly, that the roller-coasters would be fun *for Tarek*. She is clearly not reported as having thought that the roller-coasters would be fun *for her*. Though the latter would have probably been the dominant reading in most cases, in the context of 9, the other reading is pragmatically enhanced, given that it is difficult to interpret in what sense the roller-coasters would be fun for Inma, if she is not even going to be there.

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<sup>32</sup> But go back to section 4.3. for more alternatives.

My goal was not to argue that the dilemma "variable or not variable" is spurious. It is certainly true that languages with variables might be more fit to model certain bits of natural language than those without variables, and vice versa. But the divide between the two traditions, as I have tried to show in the case of taste predicates, cannot solely rest upon the semantic data. Once you have collected speakers' intuitions on the truth values of utterances involving the class of expressions considered, it takes a bit of formal language engineering to make either the implicit argument framework or the relativist framework account for the data. This suggests, times and again, that the choice between taste-neutral contents and implicit taste arguments is itself pretty much a matter of taste.\*

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