Affecting meaning

Subjectivity and evaluativity in gradable adjectives

María Inés Crespo

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Universiteit van Amsterdam
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Promotor:	Prof. dr. M.J.B. Stokhof	Universiteit van Amsterdam
Promotor:	Prof. dr. F.J.M.M. Veltman	Universiteit van Amsterdam
Co-promotor:	Prof. dr. R.A.M. van Rooij	Universiteit van Amsterdam
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A Santiago, mi hermano,
quien me enseñó a leer.

Contents

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Paris
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M.I. (Inés) Crespo

Chapter 1

Introduction

It is a well-known maxim that "in matters of taste, there can be no disputes". But it often happens that we disagree with others in matters of taste. A salient feature of such disputes is that they can be very hard to settle. Who is right concerning what is tasty, fun, or beautiful? It appears that no one has the upper hand because taste is, in some sense, subjective.

In recent years, philosophers of language and linguists have turned their attention to these issues, in particular to how taste disputes can be phrased in conversation. The basic hunch is that if a judgement like *This cake is tasty* is subjective, this is most probably related to the adjective *tasty* (rather than to, e.g., the noun *cake*). Linguists have also noted that adjectives like *long* are similar to *tasty* in that, for instance, they all have a comparative form (we can say *tastier, longer*). These are known as gradable adjectives. Common to them as well is that *long* can also lead to disputes which are hard to resolve, e.g., when we disagree on whether a movie is long. Are *tasty* and *long* subjective in the same sense? Probably not. But then, do they have something in common and if so, what might that be?

Another question, one that is somewhat worrisome, is this. If adjectives like *tasty* are subjective, how can we understand someone else say, e.g., *This cake is tasty*? If each of us has a different interpretation of the term *tasty*, then it seems that successful communication is impossible. Of course, if one believes that there is actually no subjectivity in *tasty*, this problem does not arise, but then we have to give up the seemingly intuitive idea that we started out with.

What exactly does it mean to say that adjectives like *tasty* and *long* are subjective? How can they be subjective but still be comprehensible when someone else utters them? This dissertation provides a systematic study of how subjectivity can enter into the meaning of some gradable adjectives in such a way that intersubjective understanding is possible. We mainly focus on the philosophical aspects of this question, so the contribution of this investigation is mostly of philosophical, rather than of linguistic nature.

1.1 Background

A well-established idea in formal semantics inherited from Frege and Tarski is that the meaning of a sentence is given by a specification of its truth conditions. In this tradition, the meanings of terms are determined by showing how they contribute to the truth conditions of sentences containing them. This tradition in semantics yields many successful applications, but it seems not to be able to accommodate the initial idea according to which none of the participants a taste dispute has the upper hand. Consider this simple example of such a dispute:

(1) Alf: This cake is tasty!
Bea: No, it's not!

Suppose the initial idea is cashed out by saying that in taste disputes both dialogue participants say something true and, still, they disagree. Then the traditional truth-conditional view is in trouble because on that account Alf and Bea utter contradictory propositions which cannot be both true at the same time. Prominent efforts to overcome the challenge posed to truth-conditional semantics by example (1) are presented and discussed at length in chapter 3, here we simply want to set the stage in very basic terms.

The first step these attempts take is to adopt a finer-grained take on truth-conditional semantics, such as Kaplan's distinction of character, content, and circumstance of evaluation. The content of a sentence like *I am 1,47 m tall* is determined by the characters of the expressions appearing in that sentence and by the circumstance of its evaluation. One can see characters as functions from contexts to contents. In particular, the character of the indexical *I* refers to the person who is speaking in the context in which the sentence is uttered. The content of this sentence is true or false when we evaluate it with respect to specific circumstances of evaluation, which for Kaplan basically reduce to a pair specifying time and possible world. So one can see contents as functions from circumstances of evaluation to truth values. Thus, for instance, when M.I.C. utters this sentence, *I* refers to M.I.C., so the sentence is true. If Frank Veltman utters this sentence, *I* refers to F.V., so the sentence is false. (Frank's height is 1,90 m.)

We group under the labels of contextualism, relativism, absolutism, and expressivism different solutions given so far to the challenge posed above. These four poles differ in where to place subjectivity within the cogs and wheels of post-Kaplanian truth-conditional semantics, i.e., whether subjectivity has to do with the character, content, or the extension of a sentence featuring an adjective like *tasty*. We shall argue that these different solutions have a common denominator. They all conceive of subjectivity as a form of judge-dependence.

Contextualists hold a moderate position because they argue that we do not need a substantial modification of the post-Kaplanian semantic architecture to ac-

count for the meaning of adjectives like *tasty*, and of sentences where they feature. In particular, one does not need to relativise the truth value of sentences containing adjectives like *tasty* to different judges. In a contextualist account, content and extension of an adjective like *tasty* are judge-dependent, while chararacter remains fixed. When an adjective like *tasty* appears in a sentence, it comes with an argument which has to be filled in by a judge. This judge is either given in an overt judge-phrase, as in *This cake is tasty to Alf*, or it is provided by the context of utterance, where the default is that the speaker is the relevant judge, to the effect that Alf's utterance in example (1) actually means *This cake is tasty to Alf*. Thus, many contextualists claim, taste disputes are not disagreements but rather misunderstandings, for there is a content shift when the context of utterance changes. In example (1), Bea's reaction actually means *This cake is not tasty to Bea.* which does not contradict Alf's claim.

Semantic relativism instead takes a more daring route, for it claims that to accommodate the subjectivity of adjectives like *tasty*, we have to modify the semantic framework. Basically, the idea is to introduce a judge parameter alongside time and possible world determining the circumstance of evaluation, while character and content remain fixed. Relativism has been argued to have superior explanatory power when tackling the semantics different areas of natural language, such as epistemic modals, counterfactuals, moral terms, etc. The case of adjectives like *tasty* has become in the last decade a decisive scenario in which relativists argue that their view proves its worth. If the truth of a taste judgement hinges on the judge assessing it, then the opposing judgements made by dialogue participants in a taste dispute can be held to be simultaneously true. Character and content of adjectives like *tasty* are fixed, which means that in example (1) there is indeed a disagreement and not a misunderstanding.

An absolutist position would argue that, contrary to what one may think, there is no subjectivity in adjectives like *tasty*, that taste disputes are just like any other disagreement. But there are less drastic routes in this direction. A nuanced form of absolutism stands against the relativisation of truth, but like the relativist it accepts that there is indeed something to the idea that no one has the upper hand in disputes like (1). A judgement like *This cake is tasty* roughly means *One finds this cake tasty*, and this claim has absolute truth conditions. But there is a form of judge-dependence in how *One* is interpreted, for this introduces a form special form of quantification through which the speaker selects people she identifies with. In example (1), Bea's reaction roughly means *One does not find the cake tasty* which contradicts Alf's claim, but if Bea identifies with people different from Alf then it seems that each of their respective claims can be true at the same time.

Expressivism akin to Ayerian or Stevensonian non-cognitivism has long faced the quandary posed by disagreement in prescriptive matters like those concerning ethics and aesthetics. Expressivism concerning the meaning of taste judgements basically claims that their meaning cannot (just) consist in having a truth-

conditional content. Unlike descriptive sentences for which truth-evaluable propositions can be determined, sentences like *This cake is tasty* rather express a non-cognitive attitude of approval (or disapproval) of the object under assessment. Judge-dependence appears here as well for it is a judge's attitude, normally the speaker's, that gets expressed in a taste judgement. The truth-conditional framework can be left intact because taste judgements have a a sort of meaning that is to dealt with in a different framework. The main challenge for expressivist theories are cases where taste judgements interact with ordinary judgements, where the most famous objection is the so-called Frege-Geach problem. Does *This cake is tasty* mean the same when we state is as a plain judgement as when we embed it under a conditional, e.g., in *If this cake is tasty, we will buy the same one next week*? The basic insight of this objection is that prescriptive and descriptive language interact without trouble, that we can reason with our taste judgements, that sentences expressing them have strikingly similar properties as ordinary descriptive sentences. By defending the distinction between cognitive and non-cognitive attitudes and, correspondingly, between two sorts (or layers) of meaning, the expressivist is forced to explain how these sorts of attitudes and sorts of meaning are related.

A general issue with subjectivity of adjectives like *tasty* and *long* has to do with the place it can find within the dominant semantic frameworks of gradability. Degree-based approaches analyse gradable adjectives like *long* as relations between individuals in a domain and degrees. Basically, when we say of the film "Sátántangó",[1] *"Sátántangó" is long*, what we say is that the film's length exceeds a contextually given standard of comparison. When this framework accommodates subjectivity, it does so by including a judge who sets the the standard of comparison, or the measurement procedure. The picture we get roughly says that a sentence like the one Alf utters in example (1) means that this cake's tastiness exceeds his standard. Meanwhile, delineation-based approaches claim that gradable adjectives behave like any other adjective, except that their extension depends on a contextually given comparison class. So when we compare "Sátántangó" with "Novecento",[2] we might say *"Sátántangó" is long*, but when we compare it to "Shoah"[3] we will probably say *"Sátántangó" is not long (after all)*. Subjectivity can enter in this picture by becoming a contextual factor fixing the selection of objects we compare, or the way different dimensions of a complex adjective are ranked. So in example (1) Alf may say *This cake is tasty* because, compared to the cakes he has tried, this one is fine, while Bea might have been luckier in her past experiences with cakes and is thus disappointed with this one. Or Alf may be delighted by the bitterness of the chocolate this cake contains, while Bea detests bitter tastes, so their priorities in calling something *tasty* differ.

[1] Béla Tarr, 1994, 432 min.

[2] Bernardo Bertolucci, 1976, 317 min (original cut).

[3] Claude Lanzmann, 1985, 613 min.

We face two obstacles if we follow the existing approaches to the subjectivity of gradable adjectives. The arguments are given in chapter 3 and developed further in subsequent chapters. Here we just lay down their basic traits.

First, when subjectivity is conceived as some form of judge-dependence, the condition of being a subject is reduced to the confines of an individual, as a phenomenon that is demarcated by the limits of a singular body or mind, those of the contingently designated agent in a context. But if we thus conceptualise the rule for correct application of a term as something that is completely internal to an agent, we are left with no public and intersubjective criterion according to which we can distinguish applications from misapplications. It becomes impossible to see how dialogue participants of taste disputes can understand each other.

Second, when the subject is brought into the existing analyses of gradability, subjectivity is objectivised. A judge-dependent standard of comparison or delineation is an expression of how an object relates to other objects, and not an expression of what we experience with that object. If we decide whether to call something *tasty* as the result of a measurement procedure, the adjective actually expresses a reflection on our experience, rather than our experience *tout court*. If instead a subject fixes a comparison class or the priority among dimensions of an adjective, the subject is a mere contextual factor deciding the selection of objects or a ranking of dimensions, but it is ultimately a relation among the objects under comparison what determines what the subject calls *tasty*.

1.2 Research question and hypothesis

How can we overcome these obstacles? We believe that accommodating subjectivity in the semantics of gradables adjectives requires a foundational revision of our conception of normativity, subjectivity, and linguistic meaning. This is the central philosophical contribution of the dissertation, to be found in chapters 4 and 5. What we want is to arrive at a notion of normativity that does not create a gap between descriptive and prescriptive meaning, to put on the table a notion of subjectivity that does not cut off agents from the intersubjective arena in which language occurs, and to bring into semantics a notion of embodied intentionality.

This revision is a broadening of the notion of meaning that semantics usually works with. As we said earlier, truth-conditional semantics is very successful in various domains, and its achievements should not be thrown overboard. But the case of subjectivity in gradable adjectives suggests, we argue, that semantics should not always be concerned with truth-conditional meaning, that this powerful characterisation of meaning helps us tackle *some*, but not all phenomena.

Our view, we shall see, shares with the expressivist approach the idea that affective reactions are part of the meaning of taste judgements. But the main difference between the expressivist approach and ours is that we do not claim that modeling the meaning of taste judgements requires a framework that is

different from the one needed to handle sentences with no subjectivity involved. Nor do we claim that ones needs a hybrid system combining the truth-conditional framework with a non-truth-conditional one. And we do not acquiesce to the view that prescriptive and descriptive language carry different sorts of meaning. What we need is to step back and see what idea of intentionality or aboutness, in particular of linguistic expressions, one should try to model. The idea of aboutness developed in the truth-conditional tradition stems from a strongly anti-psychologistic stance, and this results in a drastic trimming of the subject from the meaning of linguistic expressions. We do not advocate here the position that, among others, Frege and Montague were combating, namely that linguistic meanings are internal representations. We are against such view. We believe that the aboutness of linguistic expressions in natural language stems from the interaction of human, embodied agents.

Our revision of the notion of normativity benefits from Kant's analysis of taste judgements, and how these relate to what he called "cognitive judgements", roughly what the expressivist sees as the content of descriptive sentences. We will see in chapter 4 that Kant offers a way to see how taste judgements can make a claim to the agreement of others even though they are based on a feeling. He argues that the faculty of reflective judgement, i.e., our ability to take our perceptions to be universal, is involved in both taste and cognitive judgements, but in a different way in each case. This will help us make a distinction between adjectives that are weakly evaluative like *long*, for which we have developed conventionalised methods of measurement, and those which are strongly evaluative like *tasty*. In the sequel, we refer to sentences featuring adjectives like *long* or *tasty* "evaluative judgements", with the proviso that we are not isolating them as having a different sort of meaning than that of claims containing no such adjectives.

Our revision of the notion of normativity can also benefit from Wittgenstein's considerations on judgements which are in a way similar to taste judgements, as for instance avowals like *I have a headache* or certainties like Moore's notorious claim *This is a hand*. As in the case of taste judgements, we cannot convince others of what we say by providing evidence. Crucial to their meaning is how they relate to bodily expression, and more generally, to action in a social setting. Wittgenstein's observations on avowals and certainties relate to his idea of subjectivity, one that will shed light on our problem, for he delineates a view in which subjectivity depends on what happens outside rather than inside a subject. Our revision of the notion of subjectivity will thus draw on Wittgenstein's take on it.

This take is actually close to the one developed by Merleau-Ponty. The subject is social *and* embodied, these two are common features in their views. For Merleau-Ponty, embodiment is a constitutive feature of subjectivity, and also constitutive of intentionality. Our revision of the notion of linguistic meaning is achieved through a a broadening of the notion of intentionality guided by Merleau-Ponty's perspective. For him, operative intentionality, the kind of directedness we recognise in purposive movement, is basic for all cognition. We will claim that

evaluative judgements are in some sense subjective because they are made by embodied agents who signal their affective stance. In chapter 5 we argue that the meaning of a sentence, in particular of evaluative judgements, and more specifically of adjectives like *tasty* and *long*, involves a mesh of information and affect. Intentional states consist of an entanglement of how we feel, how we can act, how we expect others to act, and what we know and believe. An embodied conception of intentionality accommodates the subjectivity of adjectives like *tasty* and *long*, and it shows how intersubjective understanding is possible.

One may wonder whether this revision leads to a feasible way of modeling linguistic meaning formally. We offer in chapter 6 a sketch of a model to show that some of the central insights of our revision can be brought into a semantics for gradable adjectives. The formal implementation of the core of these ideas leads to an update system in which the meaning of a sentence is analysed as a function that modifies the intentional state of an agent, where intentional states are seen to comprise not only partial knowledge about the world but also expectations about the reactions of others. The system we get does not assume that either the positive or the comparative form is basic, which facilitates the modeling of similarities and differences in the subjectivity of adjectives like *tasty* and *long*.

1.3 Chapter overview and methodological notes

We give here a chapter overview and, *en passant*, we add a few comments concerning the general argumentative strategy.

In chapter 2, we locate adjectives like *tasty* within the big family of gradable adjectives. We give details about how to minimally characterise a gradable adjective, and how *tasty* stands closer to *long* or *skilful* than to *dry* or *empty*. Interesting for us is that adjectives like *tasty* or *long* are, in a specific sense, evaluative, though they are not evaluative in the same way. The latter belongs to those we call weakly evaluative adjectives, those for which we have developed conventionalised procedures to compare objects, while the former belongs to the strongly evaluative ones. In subsequent chapter we will elaborate on this distinction, and discuss how this view on evaluativity relates to other views. We will present three markers of subjectivity and indicate that these do not apply uniformly to weakly and strongly evaluative adjectives.

In chapter 3, we present two prominent approaches to the semantics of adjectival gradability, and the main poles in the debate concerning the subjectivity of adjectives like *tasty*. We develop an encompassing argument showing that current approaches to subjectivity in gradable adjectives fail to deliver a means to guarantee intersubjective understanding, and that the main trends modeling adjectival gradability objectivise subjectivity.

A first remark concerns the perhaps surprising route we follow in the next chapters. We go from linguistics, in particular semantics and philosophy of lan-

guage, through epistemology and phenomenology, and then back to semantics. Why do this? Our crossing is not a confusion of these fields but rather a strategy to reconstitute the notion of intentionality, in particular of linguistic expressions. But why try to lay down bridges between epistemology and semantics, between phenomenology and semantics? We believe that the prevalent notion of intentionality in semantics is bound to a narrow perspective that neglects the situatedness given by our embodiment for fear that this might lead to psychologism.

These crossings should not be surprising, at least not to those who have noticed that intentionality is a central concern in both analytic philosophy, in particular in philosophy of language and mind, and in phenomenology.[4] This move should not be suprising either to those familiar with the embodied turn in artificial intelligence. What we are trying to do here can be seen as a similar, though more constructive move, to that of Dreyfus [1972] with respect to AI.

In chapter 4, we undertake a modest epistemological inquiry into the normativity of evaluative judgements. Our goal is to explicate the notion of (in)correctness at stake here, to get a better idea of why in taste and related disputes no one seems to have the upper hand. We will investigate how Kant [1790]'s idea of reflective judgement, with some stretching, can bridge taste judgements, other evaluative judgements, and regular non-evaluative ones. *This cake is tasty* or *This film is long*, and *This cake has nuts*, are actually not that different. In all cases we take it that others should agree with us, they all make normative claims, but not all of the same nature, which is explained by how reflective judgement is involved in each case. We also deploy Wittgenstein's views on avowals (first-person present tense ascriptions of bodily or psychological states) and on certainties (statements not voicing pieces of knowledge, but rather expressing steadfast assumptions of our community). Wittgenstein's late epistemology and philosophy of psychology provides a rich source of observations on how the (in)correctness of certain claims lies outside the realm of what we prove true or false. It also suggests how subjectivity heavily depends on a subject's reactions, and how it is largely developed on the basis of intersubjectivity, on what happens among rather than within men.

In chapter 5, we will diagnose the challenges voiced at the end of chapter 3 as being due to the disembodied character of the notion of intentionality underlying the idea of meaning that comes with truth-conditional semantics. We sketch an alternative notion of embodied intentionality. For this revision we draw on Merleau-Ponty's view on cognition, a view according to which cognition is embodied and embedded. We appeal to the notion of affordance in order to specify the way expected patterns of behaviour can come to be part of the meaning of evaluative judgements. On this basis, we develop a view according to which the meaning of a sentence is specified by determining the action possibilities it signals.

[4]But one should also note that the interest of these perspectives is different, for analytic philosophy of language mainly considers the aboutness of linguistic expressions whereas phenomenology considers the conditions of possibility of such aboutness, how is it possible that an agent can have contentful states at all. Cf., Kelly [2010], in particular in ch. 1.

The third methodological point is that in chapters 4 and 5 discussions concerning Kant, Wittgenstein, and Merleau-Ponty, will take some space. We rely on these philosophical works as sources of expansion of the idea of intentionality underlying linguistic meaning. We do not intend our rendering of the concepts we present to be deep scholarly contributions, but simply to stand as useful reconstructions which will hopefully allow the reader who is not familiar with the notions we draw on to follow our argumentation. This has two immediate consequences. On the one hand, we do not try to be exhaustive in including all nuances in exegetical debates. We try to make up in footnotes for some of the details we omit in the main text for the sake of simplicity. On the other hand, we do not ask the reader to fully endorse Kant's idea of reflective judgement, Wittgenstein's view on avowals and certainties, or Merleau-Pontyian intentionality. We lean on these notions but we do not need to commit to them beyond the basic needs we set in our inquiry.

In chapter 6, we sketch a semantic model for gradable adjectives, a model that takes the shape of an update system. We exploit the notion of expectation to cash out the way in which action possibilities can enter into a formal model of the meaning of *tasty* and *long*. Our fourth methodological point concerns how the formal system we sketch in chapter 6 stands with respect to the philosophical analysis of intentionality we develop in chapters 4 and 5, and with respect to existing frameworks of gradability. On the one hand, the system simply provides a proof of concept that will let us see whether our reasoning in chapter 5 can lead to a systematic treatment of structural features of the meaning of evaluative judgements. So, one should not see chapter 6 as the culmination of our investigation but as a tentative exploration of how to take our philosophical analysis into the formal arena. On the other hand, the theory we offer is not intended to stand on a par with respect to the predictive power of existing semantic theories of gradability. It simply purports to show that a broader conception of linguistic meaning as the one we sketch can lend itself to formal treatment.

1.4 Output

The contents of this dissertation have been presented in several venues. Peer-reviewed submissions (journal articles, book chapters) based on these materials are currently in preparation.

M. I. Crespo. Against degree-based semantics for taste. In X. Arrazola and M. Ponte, editors, *Proceedings of the Second ILCLI International Workshop on Logic and Philosophy of Knowledge, Communication, and Action*, pages 209–228. Institute for Logic, Cognition, Language, and Information, The University of the Basque Country, 2010.

I. Crespo and R. Fernández. Expressing taste in dialogue. In *Proceedings of the 15th SemDial Workshop on the Semantics and Pragmatics of Dialogue*, pages 84–93, 2011.

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I. Crespo. On certainty and subjectivity in taste. In D. Moyal-Sharrock, V. A. Munz, and A. Coliva, editors, *Mind, Language and Action: Contributions to the 36th International Wittgenstein Symposium.* Austrian Ludwig Wittgenstein Society, 2013. (Recipient of the "Werner & Elisabeth Leinfellner Award".)

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Chapter 2

Gradability, evaluativity, subjectivity

In this chapter we present the core phenomena that will be discussed in the dissertation. In section 2.1, we will give a descriptive introduction to gradable adjectives and a first typology that classifies them, the relative vs. absolute distinction. Predicates of personal taste (PPTs hereafter) like *pretty, tasty, beautiful* belong, as it seems, to the family of relative gradable adjectives (RGAs hereafter), along with, e.g., *long, heavy, skilful*. It is the goal of this thesis to investigate how PPTs stand in relation to RGAs, their next-of-kin.

RGAs do not form a uniform class. One of the reasons for this is that, in a specific sense, they are all evaluative, but not all of them in the same way. In section 2.2, we will give a preliminary description of the notion of evaluativity we will develop in the dissertation. We shall see that evaluativity as we think of it relates closely to the way other authors have understood it, but it differs as well in crucial respects.

PPTs have drawn semanticists' attention mainly because they are, in some sense, subjective. We will discuss three markers of subjectivity in section 2.3. As we shall argue, some of these can also be found in other RGAs. In this chapter we do not make claims about whether there is just one source of subjectivity, or more than one. The challenge for this dissertation is to investigate the sense in which RGAs are subjective, and why PPTs stand out in this respect.

RGAs are heavily context-dependent. However, we do not wish this claim to be read as taking a position in the contextualism vs. minimalism debate in semantics.[1] We do not wish to enter that debate and make claims about whether, for instance, comparison classes are determined by literal meaning, by context, or by a combination of these two. As it will turn out in the coming chapters, we recant from this discussion for fairly principled reasons, for we do not partake in the shared assumption of contextualists and minimalists alike, namely, that semantic content is to be specified truth-conditionally. Our argument, however, will only set off in chapter 3.

[1] Cf., Cappelen and Lepore [2005], Stanley [2005], among other views in this debate.

2.1 The menagerie of gradable adjectives

Gradable adjectives have been thoroughly discussed in semantics. Adjectives like *long, heavy, wet, empty, tasty, painful, beautiful*, all belong to this class. It is widely agreed that they do not form a perfectly homogeneous family,[2] and there exist various typologies that classify them. We introduce in subsection 2.1.1 a description of the basic features of gradable adjectives, and in subsection 2.1.2 we briefly the relative vs. absolute typology. In this dissertation, we wish to zoom into RGAs to investigate their evaluativity, as discussed in section 2.2, and subjectivity, presented in section 2.3. For that reason, and as a methodological decision, we will leave absolute gradable adjectives aside. Actually, we do not think absolute gradable adjectives are essentially different from relative ones, but as a means to restrict the scope of the phenomena that we examine, we postpone an analysis of absolute ones. In subsection 2.1.3 we present PPTs understood very broadly, and we discuss how, and to what extent, they belong to the subfamily of RGAs.

2.1.1 Gradable vs. non-gradable adjectives

There are plenty of well-known characterisations of gradable adjectives as class of noun modifiers. It is not such an easy task, however, to give one that does not entail strong and often disputable theoretical commitments. For instance, one can define gradable adjectives as those adjectives which denote a property's being instantiated to a certain extent, or that they come to denote a property only after one can fix threshold that an object must reach in order to count as having that property. Clear as these descriptions may be, they hinge on theoretical views that we do not wish to endorse at this point. In fact, we will defend in later chapters a theoretical approach that relinquishes the postulation of standard measurements or thresholds as necessary components of the interpretation of gradable adjectives. So here we try to keep the characterisation at a descriptive level, and postpone theoretical considerations to the next chapter and subsequent ones.

What is common to all gradable adjectives? First off, these adjectives have a positive (unmarked) form, and also comparative and superlative forms.[3] In English, comparatives are formed either by the addition of the suffix *-er* to the positive form or the anteposition of the determiner *more* (examples of irregular cases are *far, further; good, better*).[4] We exemplify a few adjectives in comparative form here:

[2]The title of this section is inspired by sec. 4 in ch. 2 of Morzycki [2013].

[3]In this and subsequent chapters, superlatives remain largely undiscussed. Although they raise interesting issues (e.g., in prenominal position in English they give rise to an absolute and a comparative reading, cf., Szabolcsi [1986]), semanticists in general consider them as a variation of the comparative form. They same goes for the adverbial modification *less* (opposite of the increasing comparative *more*), and for equative constructions *as tall as*.

[4]Once we introduce the notion of PPTs in section 2.1.3 below, the reader may want to place

(1) a. full, fuller
b. tall, taller
c. expensive, more expensive

In contrast, non-gradable adjectives (NGAs henceforth) like *dead vs. alive, prime, nuclear* do not admit comparative forms, as illustrated below.[5]

(2) a. (?) nuclear, more nuclear[6]
b. (?) digital, more digital
c. (?) dead, more dead

Gradable adjectives can be modified with intensifying adverbs commonly known as degree adverbs,[7] like *almost, very, really, fairly.* These are a few examples from the British National Corpus:

(3) a. The moon was almost full.
b. The rootstock is a fairly tall plant.
c. It's a very expensive undertaking.

Note that not all combinations are equally fine: *John is slightly tall* and *The towel is almost wet* are not easily interpreted,[8] this is one of the clues suggesting that the landscape of gradable adjectives is rather complex. Meanwhile, NGAs do not easily co-occur with the intensifying adverbs we listed above,[9]

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good, better; bad, worse in that family. We will argue then in favour of leaving these aside as a methodological choice.

[5]Here and elsewhere in this dissertation we mention examples and observations made on data coming the British National Corpus (100 million words, 1980s-1993, with good coverage of everyday conversation)(Burnard [2000]). Our queries were run through the online site http://corpus.byu.edu/bnc/. Where NGAs are found in comparative form in the BNC, these are often cases in which *more* operates in quantifier phrases on a noun which is modified by the adjective, as in this example: *Despite the changes taking place in Europe, it plans to station even more nuclear weapons here in Britain.* Note, however, that in the construction *be/look more dead than alive*, the adjectives seem to work gradably, likewise for other literary resources, as in this other quotation from the BNC: *For several years we have been leaning over backwards to avoid the use of the forbidden word, instructing the population at large that it is more dead than the dodo and deleting it from our titles with abandon.*

[6]We write here question marks in order to mark an oddity, without making a claim of ungrammaticality. This is partly related to the mechanisms by which NGAs can function as gradable ones discussed below.

[7]We prefer to avoid this label in order not to suggest an endorsement of the degree-based view on gradability. The arguments for this come in chapter 3 and the following ones.

[8]The string "slightly tall" shows no occurrences in the BNC, and only one occurrence is found for "almost wet". (But in the excerpt the construction is actually *almost wet through*, meaning roughly "almost completely wet".)

[9]As a a simple illustration of this claim, we can observe that the strings "almost nuclear" and "really digital" do not occur in the BNC. But one can see that modifications of, e.g., *dead* with *very* do occur, mostly as an emphasiser modifying inanimate nouns, as in, e.g., *A very dead subject* or *Malls have become very dead places.*

Gradable adjectives can occur not only in attributive position, as in example (4-a), but also in predicative position, as in example (4-b).

(4) a. John is a tall man.
b. John is tall.

Some NGAs admit the two positions, as *digital* in *This is a digital watch* or *This watch is digital*, some do not, as exemplified below:

(5) a. The former president of the board was here today.
b. (?) The president is former.

Some NGAs like *former* or *alleged* admitting both positions are known as privative.[10] Special about privative adjectives is that like gradable adjectives, they are non-intersective, while NGAs like *pregnant, Dutch, married, plastic* are intersective. An adjective A is intersective if the following argument form is valid:

Intersectivity of the positive form

premise 1	x is an A N
premise 2	x is an M
conclusion	x is an A M

But from *Alf is a tall jockey* and *Alf is a man* you should not infer *Alf is a tall man*. Note that for some gradable adjectives the corresponding comparative is intersective, as for instance with *tall*. From *If Alf is a taller jockey than Bert* and *Alf and Bert are men*, you infer *Alf is a taller man than Bert*. But for some gradable adjectives like *skilful* the comparative is non-intersective: from *If Alf is a more skilful pianist than Bert* and *Alf and Bert are carpenters*, you cannot infer *Alf is a more skilful carpenter than Bert*.

Privative adjectives differ however from gradable adjectives like *tall, expensive, skilful, heavy*, in that only the latter are subsective. An adjective A is subsective if the following argument form is valid:

Subsectivity of the positive form

premise	x is an A N
conclusion	x is an N

Last, most gradable adjectives come with a clear antonym, a polar opposite:

(6) a. full vs. empty
b. tall vs. short
c. expensive vs. cheap

This allows us to say, for instance, that someone is neither tall nor short, that something is neither tasty nor disgusting, etc. For some pairs of polar opposites,

[10] The term comes from Kamp and Partee [1995], see further discussion in Partee [2001].

there seems to be no gap left, for instance with *open, closed*: if a door is not open, then it is closed (and vice-versa). Of course, this idea of antonymy is a rather narrow one.[11] One can consider antonymy to be a broader linguistic phenomenon, one occurring as well among NGAs like *dead, alive*, nouns like *day, night*, verbs like *to lift, to drop*, etc.[12] Together with the features listed above, antonymy should be considered part of the characterisation of gradable adjectives, but not a defining feature by itself.

Note that many gradable adjectives have non-gradable uses, e.g., *short vowel, light artillery, the baseman is safe, an old friend*. These fixed expressions do not admit, in principle, comparatives or adverbial modifications:

(7) a. (?) a shorter vowel
b. (?) a baseman who is very safe

NGAs can work as gradable adjectives by at least two mechanisms. First, loose talk can allow an adjective like *hexagonal* to function as being gradable, e.g., when we say that France is more hexagonal than Spain.[13] The second mechanism relates to prototypicality,[14] for instance when marked with an intensifier, as in *This is a very English habit* or *My sister is very pregnant*.

Such remarks suggest that actually the distinction between gradable adjectives and NGAs is not absolutely clear-cut.[15] In any case, NGAs do not admit comparison *and* intensification, as gradable adjectives do. This seems to be supported by the impossibility of suffixation of these adjectives with *-er* to form a comparative in English.[16]

[11] An idea coming from Lyons [1968, 1977], Cruse [1986].

[12] Cf., Jones [2003], Lobanova [2012].

[13] See, e.g., Austin [1962] and discussed in the context of vagueness and imprecision in Lewis [1979]. But here we do not need to commit to any particular theory.

[14] Although prototype theory has been mainly discussed with respect to nouns and concept formation (see, e.g., Kamp and Partee [1995], Sassoon [2007]), it is interesting to think of the case of NGAs because given their intersectivity, they denote a simple property in the extensional sense, and in this respect they are in a sense on a same standing as nouns.

[15] But as announced in the introduction to this chapter (and see fn. 1), we are not going to start a discussion on what the literal meaning of an NGA like *hexagonal* is.

[16] An interesting case is that of 'extreme' adjectives like *exhausted* (extreme of *tired*), *huge* (extreme of *big*), or *delicious* (extreme of *tasty*) which do not co-occur with *very* but where the comparative seems to be unproblematic, as in, e.g., *House A is even more huge than house B*. This raises a question on the status of the grammatical criteria presented so far, given that an adjective may fail to fit in the grammatical patterns but may still have gradable uses. These extreme cases have been considered to be a sort of covert superlatives (see Cruse, 1986, p. 216) which would explain the oddity of modifying them with *very*, just as one would be surprised by *very tallest*. But then, the same question may be raised with respect to more typical examples of NGAs, like *pregnant*, for it is possible to find examples from actual use in the BNC, like *She looked more pregnant now than the last time he had seen her.* (But one may argue that *more* here modifies *look pregnant* rather than *pregnant*.)

2.1.2 The relative vs. absolute typology

We have already hinted at the fact that the class of gradable adjectives is not fully uniform. Various typologies have been proposed which do not partition the class in exactly the same way.[17] The relative vs. absolute typology has a long story, one mostly rooted in the degree-based accounts of gradability which assign a central explanatory role to scale structure, as we shall see in chapter 3. However, as a linguistic phenomenon it is theory-independent, to the extent that it can also be accounted for in delineation-based models which do not make assumptions concerning degrees or scales, presented later on in chapter 3. Here we wish to introduce this taxonomy without making a commitment to a specific theoretical view on the matter. Our description is not meant to be an exhaustive list of features that set relative and absolute gradable adjectives apart but just a first means to cut down our object of study.[18]

Canonical examples of RGAs are *tall, heavy, expensive*. Typical absolute gradable adjectives (AGAs hereafter) are *flat vs. bumpy; full vs. empty; open vs. closed*. They align with RGAs in being gradable, but they are to some extent context-*in*sensitive, which has led some semanticists to discuss the proximity of AGAs to NGAs.[19] RGAs allow explicit qualification to a set of comparable objects with a *for*-prepositional phrase, as in example (8).

(8) a. Alf is tall for a basketball player.
b. Alf is tall for a jockey.

AGAs come with strict and loose uses. If you consider an AGA like *closed*, the addition of an explicit comparison class is infelicitous:

(9) (?) Compared to Door #1, Door #2 is closed.

When a comparison class restricting an AGA is made explicit, as illustrated in example (10-a), an imprecise interpretation of the adjective is forced,[20] which becomes explicit when modified by an intensifier as given in example (10-b). In interaction with focal stress,[21] some of them admit no comparative, as given in case (10-c):

(10) a. For a Friday, the dentist's schedule is full.

[17] The partial vs. total distinction from Rotstein and Winter [2004] does not exactly coincide with the relative vs. absolute typology, but it will not play a substantial role in our later discussions. The dimensional vs. evaluative typology from Bierwisch [1989] is thought by, e.g., Toledo [2011] to coincide with the RGA vs. AGA distinction but we will come to see later on in subsection 2.2.1 that they should not be identified.

[18] See more extensive discussions of the features that set relative and absolute gradable adjectives apart in Kennedy and McNally [2005], Toledo and Sassoon [2011], etc.

[19] See Burnett [2012].

[20] As noted by McNally [2011].

[21] Focal stress is thought by, e.g., Unger [1975] to force a precise interpretation.

b. For a Friday, the dentist's schedule is very full.
c. (?) The pavement is FLAT, but the desk is flatter.

Example (11) shows how a positive claim involving RGAs always leaves room for a comparative difference. Somewhat schematically, let G be an RGA. Then if an object x is G, then it should be logically possible for there to be an object y that is G-*er* than x, and an object z that is less G than x.

(11) That film is long, but it could be longer.

For AGAs, this is not always possible, as illustrated in the examples below.

(12) a. (?) If a tank is full then it could be fuller.[22]
b. (?) If a drawer is empty, then it can be emptier.
c. If a window is dirty, then it can be dirtier.
d. (?) If scalpel, then it can be cleaner.[23]

The distribution of intensifying adverbs also gives clues about the distinction being made here. While generally gradable adjectives admit modification with an intensifier like *very*, this is not possible with certain AGAs:

(13) a. (?) The door is very closed.
b. The door is completely closed.

Meanwhile, RGAs generally do not co-occur with adverbial modifiers such as *perfectly, almost, completely*:[24]

(14) a. (?) perfectly expensive
b. (?) almost tall
c. (?) completely heavy

Last,[25] RGAs can lead to the Sorites paradox. Here is an example of how it goes:

[22]One could imagine saying this of a glass of wine which has been poured without much generosity, but then here *full* works via the prototype for a full wine glass.

[23]Here the noun we choose is meant to force a very rigorous interpretation of *clean*.

[24]As observed by Rotstein and Winter [2004] and Kennedy and McNally [2005]. These patterns show no occurrences when searched for in the BNC.

[25]There are further features of the RGA vs. AGA distinction we have not discussed here because our own goal is more limited, for we choose to zoom into RGAs. One of these features is the fact that it is possible to use RGAs to distinguish between two individuals in a two-element comparison class when they appear in a definite description, as when we say looking at two containers *Pass me the tall one*, even if none of them is remarkably tall. This is not as easy to do with AGAs, since if none of the containers is completely empty, then it is not as easy to use the definite description *Pass me the empty one* to single out one of them. (As observed by, e.g., Kyburg and Morreau [2000], Kennedy [2007], Syrett et al. [2006], Burnett [2012].) Another feature we do not list in our minimal description are inference patterns concerning the relation between the comparative and the positive form. Normally, it is thought that for RGAs, the positive does not imply the comparative, that is, from *Alf is taller than Bea* one cannot conclude

Sorites reasoning

Premise1:	*Everybody shorter than 1.60 m, is short.*
Premise 2:	*Everybody who is 2 mm taller than somebody short, is short.*
Conclusion:	*Everybody is short.*

All you need to construct a Sorites argument is a adjective A, the use of which is guided by the *Tolerance Principle*:[26] If there is no significant difference between two objects in respects relevant to A, then either A applies to both or to neither.[27] This principle does not extend to AGAs, for there is a specific transition from which we pass from a door's being closed to a door's being 1mm open.[28]

Our aim is to investigate differences among RGAs concerning their evaluativity and subjectivity, rather than to offer a fully encompassing theory of gradability, so in the sequel of this investigation we leave AGAs aside and focus on RGAs. This is, as indicated earlier, a methodological choice made for the sake of briefness and clarity in our exposition. To some extent we regret this, and we believe that further research extending this one should definitely contemplate AGAs.

Before ending this section, we mention two issues which are orthogonal to the RGA vs. AGA typology, but which will remain in the background of subsequent discussions. The first one concerns different antonymy relations in which gradable adjectives stand, and the second concerns multidimensionality.

Polar opposites can stand in contrary or contradictory relation.[29] RGAs normally form contrary pairs:

(15) If John is tall then John is not short.

But *tall vs. short; cheap vs. expensive; heavy vs. light* are not contradictories. If John is not tall, then it does not necessarily follow that he is short.

Meanwhile, some AGAs form contradictory pairs, but some do not:

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that either Alf or Bea are tall. This is different for AGAs because from *Glass 1 is emptier than glass 2.* one infers *Glass 2 is not empty*, and from *Table 1 is dirtier than table 2* one infers *Table 1 is dirty.* For similar methodological reasons, we also leave aside here cross-polar anomalies (see Kennedy [1997]) and interadjective comparisons (see van Rooij [2011c]).

[26]This analysis owes much to Veltman's notes on the Sorites paradox, originally appearing in Veltman [1987] and more recently published in Veltman [2013].

[27]Cf., Dummett [1975].

[28]But well, the paradox of Achilles and the Tortoise seems to push precisely this point.

[29]These remarks are related to the work of Cruse [1976] and Burnett [2012]. Other classifications of antonyms are available, going back to the early work by Sapir [1944]. Interestingly, Cruse introduces the three subtypes of antonymy: what he calls polar antonyms like *tall vs. short* are typically evaluatively neutral and objectively descriptive; those he calls overlapping antonyms, like *beautiful vs. ugly*, have an evaluative polarity (approving or disapproving) as part of their meaning; equipollent antonyms like *nice vs. nasty* denote subjective sensations or emotions, or evaluations based on subjective reactions. We do not investigate these distinctions further only for reasons of time and space, but they are certainly interesting.

(16) The door is closed if and only if it is not open.

However, if a room is not empty, it is not necessarily full. From this, we conclude that contrariness vs. contradictoriness does not crop out the same distinction as RGAs and AGAs. We will keep this difference in the background but we will not thematise over the issue in the sequel.

The second issue we want to mention here concerns multidimensionality. Some gradable adjectives have been called unidimensional because, for some of them like *tall vs. short; bald vs. hairy*, it is easy to associate their interpretation with values along a unique scalar dimension, e.g., height for *tall* and quantity of hair for *bald*.[30] Along this dimension we can order elements we compare, for instance we can easily order students in a class by height if we are interested in finding out who is taller than who. However, many (or most) adjectives are multidimensional, in the sense a plurality of aspects of an object are taken into account to evaluate whether the adjective can be applied.[31] The defining feature here is that one can get different orderings of the objects under comparison as a consequence of there bein a plurality of different dimensions involved. So for instance, if we ask Alf and Bea to order objects according to the *bigger than* comparative, the resulting orderings may differ because for Alf the height of the objects dominates the comparison whereas for Bea it is width, or depth, or the relative standing of all these features what dominates the ordering she produces.[32]

Interestingly, views differ about how to understand this plurality. The first way is best illustrated when thinking of an adjective like *clever*, where "the adjective is associated with a number of criteria, and these fail to constitute a necessary and sufficient set of conditions for cleverness."[33] Under such view, the set of possible criteria determining the extension of the adjective is essentially open-ended,[34] so that no finite list of dimensions and specification of relations thereof could suffice to fully capture their meaning. A different view assumes that we only take a limited set of dimensions into account when using these terms. On such grounds, it is thought that one can specify the relative weights of the finite set of dimensions that are involved in specific utterances involving multidimensional adjectives.[35]

Sassoon [2013] provides several tests intended to facilitate the identification of multidimensional adjectives. For instance, the specification of one or more

[30]Cf., McConnell-Ginet [1973], Kamp [1975], Klein [1980], Sassoon [2013].

[31]Note that uni- vs. multidimensionality is not a distinction that holds just for gradable adjectives. Take for instance the case of colour adjectives, which can be analysed along the dimensions of brightness, hue, and saturation. See for instance Gärdenfors [2000]. For a degree-based based approach to colour terms, see Kennedy and McNally [2010].

[32]This may give rise to "intransitivities of a kind familiar in social choice theory", as noted Égré and Klinedinst [2011], and as explored further by Grinsell [2012].

[33]Klein [1980], p. 7.

[34]Cf., Klein [1980], fn. 8.

[35]Cf., Sassoon [2013], Van Rooij [2011c].

dimensions via prepositional phrases like *with respect to* is admissible only for multidimensional adjectives, which also allows to quantify over multiple dimensions and to make explicit exceptions, as in the following examples:

(17) a. John is healthy with respect to his blood pressure.
b. Elena is healthy in every/some/most respect(s).
c. Ruth is healthy except with respect to her cholesterol.

The uni- vs. multidimensional distinction is orthogonal to the RGA vs. AGA one because, as Sassoon [2013] argues, a multidimensional adjective may align with RGAs or with AGAs, depending on how judgments of membership in all the dimensions together determine membership in the adjective. So for instance *typical, atypical* would more easily align with RGAs, while *identical, different* would more easily align with AGAs.[36]

The uni- vs. multidimensional distinction will remain in the background in the sequel because multidimensionality leads to phenomena which are similar to the evaluativity and the subjectivity phenomena we will present in section 2.3.

Now that we have seen how complex the landscape can get, we zoom in further. We will now focus on PPTs, to see how they fit in the picture we have so far.

2.1.3 PPTs in the menagerie

In recent years, semanticists and philosophers have paid a lot of attention to a kind of gradable adjectives, the so-called PPTs.[37] These are adjectives like *tasty, fun* and related adjectival phrases like *funny, tasteful, taste good* which can express an experience, a sensation, a feeling, or a sentiment.[38] The general idea is that judgements as illustrated in the following example are evaluative, concerning matters of what one should do rather than matters of fact.

[36]Sassoon [2013] distinguishes between different ways in which the different dimensions can be bound, conjunctive binding is the case where an object ought to qualify in all dimensions in order to belong to the extension of the multidimensional adjective. In contrast, disjunctive binding refers to the opposite case, where an object may qualify in just some dimensions in order to belong to the extension of the multidimensional adjective. There are also mixed cases like that of *intelligent* where, according to her, "pragmatics determines whether, e.g., being intelligent in but one dimension (say, mathematics) suffices to count as intelligent, or every contextually relevant dimension counts." (p. 5)

[37]This is the label given by Lasersohn [2005], where he develops a relativist system to account for their semantics. We present his analysis in chapter 3, subsection 3.2.2.

[38]A perhaps surprising fact is that *tasty*, the central example in the discussions within semantics and philosophy literature on PPTs, is not a very frequent adjective in actual language use, as indicated by the fact that it does not appear in the BNC frequency lists compiled by Leech et al. [2001] (see list 2.1 at http://ucrel.lancs.ac.uk/bncfreq/flists.html.) Such frequency lists contain all words with a minimum lemma frequency of 160 per million words in either the written or the spoken sections of the BNC.

(18) a. This cake is tasty.[39]
b. It was a fun movie.
c. That is painful.

What evaluativity actually amounts to is of course an issue, one that we start discussing in section 2.2. The basic intuition given by most authors is that PPTs are related to an agent's subjectivity. Again, how one conceives of subjectivity is another complex issue. Fleshing that out is partly the goal of this dissertation, and the discussion begins in in section 2.3 below.[40] and then show that PPTs are gradable (even if it is a bit obvious), and that they can be classified as RGAs in the typology presented in the previous subsection.

To try to flesh out what this idea of experience which seems to be involved in PPTs, let us observe that taste experience, in particular, involves a complex interaction of our senses, where flavour is but one element in what is at stake in taste evaluations. In wine tasting and beyond, taste is seen as a fusion of taste, smell, and texture (tactile sensations), often called mouthfeel.[41] That is, gustatory stimulus is only part of the manifold of sensations that are relevant to the experiences involved in tasting, and our regular uses of PPTs like *tasty* do not apply strictly only to the gustatory aspect. Moreover, an adjective like *tasty* does not necessarily expresses a hedonic appraisal. "Aesthetic disgust", an emotive reaction signaling appreciative regard and understanding but which involves a negative valence in the experience, has been argued[42] to be aroused by certain works of art but also by food. Although there is biologically triggered repulsion (e.g., to vomit, to rotting substances, to cruelty),[43] there are also culturally modulated food practices in which something *prima facie* repulsive becomes appeciated.[44] This gives an idea of how there is no simple criterion to determine tastiness, for something producing repulsion to lots of people might be a delight to some.

[39]PPTs can modify nouns. They can be predicated of individual items, but also to sorts of objects given by mass nouns, bare plurals, etc. For the sake of clarity and simplicity, he focus on predications on individual items.

[40]Of course, there is a more specific formulation, for instance, to say that the truth or falsity of these judgements depends not only on a state of affairs but also on whose opinion is being expressed. Or one may also define these as judgements where a standard or threshold for what counts as tasty or fun is subjective. As we shall see below, such formulations presuppose that one endorse truth-conditional semantics, or a semantics for such adjectives which relies on standards. Both ideas will be questioned in subsequent chapters.

[41]Cf., Lehrer [2009], Smith [2007, 2009].

[42]In Korsmeyer [2002, 2011].

[43]While cruelty can be thought to immediately produce disgust, this is not a strict correlation. Think for instance of ortolan, a tiny bird which is drowned in Armagnac, plucked, roasted and served whole, wings and legs tucked in, eyes open. Cf., Korsmeyer [2002],

[44]Like casu marzu (a traditional Sardinian sheep milk cheese containing live insect larvae) or sannakji (Korean live octopus).

In the existing literature, adjectives like *good vs. bad* are usually thought to fall under the PPT label, but are left out of consideration, given the fundamental issues they raise in metaethics. In the sequel, we will follow this methodological choice for the sake of simplicity, for it would take a whole dissertation (actually, much more) to do justice to the interesting and intricate debates concerning the meaning of moral terms. We do not wish to claim here, however, that there are principled reason why one should cut off these often called thin concepts[45] from the broader family of PPTs. Note, however, that non-ethical uses of terms like *good vs. bad* abound, where the adjective expresses approval, as in the adjectival phrase *tastes good*. So where relevant, these adjectives will be considered explicitly.

The same reasoning could be repeated here to leave aside paradigmatic aesthetic adjectives like *beautiful*. Until recently, aesthetic terms like *beautiful* and adjectives like Sibley's aesthetic concepts, e.g., *lifeless, balanced, moving*,[46] or others having strong descriptive content, like *sour, fruity, complex*, were either put aside for the same reason as for the case of ethical terms,[47] or were simply assimilated to PPTs. Recent discussions suggest how to keep PPTs and aesthetic adjectives apart.[48] We will not advocate for a complete assimilation of PPTs and aesthetic adjectives, but we want to suggest that aesthetic adjectives are a close next of kin of PPTs, sufficiently close ones so as not to draw a distinction here.

[45] Cf., Hare [1952], Williams [1985].

[46] Cf., Sibley [1959].

[47] As in Lasersohn [2005], p. 645.

[48] McNally and Stojanovic [2014] provide an interesting discussion of how aesthetic adjectives appear in the adjectival domain. We think that it is important to study the differences between *tasty* and *beautiful* from a linguistic point of view, but we do not adopt their demarcation for reasons given later on in the dissertation, although we will not discuss their view explicitly in the sequel. For that reason, we briefly gather them here, with pointers to the relevant chapters. One of the reasons given by McNally and Stojanovic to keep PPTs and aesthetic adjectives apart is, they claim, that the semantics of PPTs entails an experiencer (following Bylinina [2014]) while the semantics of aesthetic adjectives does not (or need not). Along with others in the field, they conceptualise the experiencer argument as "a sentient individual who perceives the property in question." (sec. 2.4, p. 6). But to claim that an individual perceives the property of, e.g., tastiness when she says *This cake is tasty (to me)* is to take a stance regarding the semantics of PPTs that we will reject in chapter 5. One should not think of *tasty* as describing a property that a sentient individual perceives. Another reason given by McNally and Stojanovic is that, if one takes the felicitousness of a to/for prepositional phrase as a test for there being an experiencer argument, then one can see that (some) aesthetic adjectives do not admit it. McNally and Stojanovic point at the scarcity of occurrences of such cases in the BNC, and indicate that the infelicitousness of a sentence like *Miró's work looks beautiful to me* "suggests that we do not, as a rule, attribute beauty or goodness based on perceptual experience." (sec. 2.4, p. 9). In chapter 4 we will actually claim the opposite, along with Kant. In spite of the infelicitousness of the sentence above, one can ask: can something look beautiful or good to a non-sentient being? Our answer, in chapters 4 and 5, will be that this is not possible. Maybe the linguistic notion of experiencer argument is not entailed, but a more general condition of sentience underlies these adjectives.

	freq. per million words	**% per adjective type**
long	365	89,2
longer	38	9,3
longest	7	1,7
hard	153	88,4
harder	15	8,7
hardest	5	2,9
funny	161	98,2
funnier	1	0,6
funniest	2	1,2
nice	603	98
nicer	9	1,5
nicest	3	0,5

Table 2.1: Sample frequencies for the positive, comparative, and superlative forms of PPTs (*funny, nice*) and of ordinary gradable adjectives (*long, hard*) per million words in the spoken section of the BNC, according to the BNC frequency lists by Leech et al. [2001].

Perhaps other adjectives that can be considered to be PPTs emotion adjectives like *sad vs. happy*[49], maybe also words which relate to existential feelings or modes like *estranged, detached*,[50] and also adjectives related to moods like *sarcastic, supportive*, and to feelings like *dreadful, hopeful*. Although we will not pay special attention to these adjectives in the sequel, we do not see strong reasons to leave them aside here, so they will remain in the repertory of cases we refer to by the name of PPTs.

Now, are all these PPTs gradable adjectivea? It is not hard to convince the reader that one can say, for instance, *Bordeaux wines are tastier than Basque wines*, *This vase is more beautiful than that jar*, or *Your solution is more elegant than mine*. As a concrete indicator of the markers of gradability in PPTs, we list here some general data concerning actual use. A source where one can look at this are BNC frequency lists.[51] In table 2.1, we present frequencies of PPTs as compared with other gradable adjectives. One can see that although the comparative and the superlative occur in spoken use of PPTs, they are less frequent than the comparative and superlative forms of seemingly less special gradable adjectives.

As for adverbial modification, it is easy to find examples with *very, really, fairly* as in these examples from the BNC:

[49]Cf., Stojanovic [2012].

[50]Cf., Ratcliffe [2009].

[51]See in fn. 38 a technical description of these lists.

(19) a. It's a play that's got some very very funny bits in it.
b. The cupboards are fairly nice.
c. This is a really happy ending to your story.

Concerning attributive and predicative position, here is an example from the BNC illustrating these.[52]

(20) a. Oh that's funny, isn't it.
b. But the funny thing is by the time I got home I still remembered it.

Most PPTs come with at least one neat antonym: *tasty vs. disgusting*[53], *nice vs. nasty*, *happy vs. sad*. They usually stand as contraries. This allows us to say, for instance, that something is neither tasty nor disgusting, that someone is neither happy nor sad, that something is neither nice nor nasty.

It seems easy to place PPTs under RGAs, for they allow explicit qualification with a *for*-PP introducing a set of comparable objects as illustrated here.

(21) a. Chateau Bon Ami is tasty for a supermarket wine.
b. This place is fine for a three-star hotel.[54]
c. Compared to Chateau Bon Ami, this Chateau Lamothe is tasty.

The following example shows how a positive claim involving PPTs leaves room for a comparative difference, although one can also recognise an extreme character in some PPTs as given in example (22-b).

(22) a. This dish is tasty, but it could be tastier.
b. She couldn't be any more beautiful!

Concerning the distribution of intensifying adverbs, it is easy to find examples featuring *very tasty* or *really funny*. We should note however that although examples with *slightly, almost, perfectly* are rare, they can be found in the BNC:[55]

(23) a. There was something slightly comic about her appearance.
b. He was almost fun to be with at times.
c. If you don't have any spare rooms we'll be perfectly happy to sleep together.

[52]Notice that actually lots of the examples of predicative uses found in the BNC of, e.g., *happy* come in complex verbal constructions like *happy to meet you*, which so far have not been discussed in the literature on PPTs.

[53]The more nuanced *unappetising* is also available as a polar opposite. We will mostly stick to *disgusting* in the sequel. See the subsequent comment about the multiplicity of antonyms for PPTs in the text below.

[54]From McNally and Stojanovic [2014], p. 11, ex. 20-c.

[55]If one holds that this is a decisive criterion to classify an adjective as being an AGA (as one could perhaps read, e.g., Kennedy and McNally [2005] and others following Rotstein and Winter [2004]), then this observation could challenge our decision to put PPTs under RGAs.

Finally, some PPTs can be argued to lead to the Sorites reasoning, in particular those like *sweet, salty* which have a descriptive component associated to quantities of substances like salt or sugar which one can theoretically count.[56] For instance if we consider grains of sugar added one by one to a cup of tea, the first few trials would lead to a negative judgement like *The tea is not sweet.* The Tolerance Principle telling us that between indistinguishable perceptions one should make equal judgements could lead us to say that the cup of tea is never sweet.

Before closing this section, a note about multidimensionality. While it is true that in the semantics literature PPTs as *beautiful, pretty, brave* are given as examples of adjectives which involve a plurality of criteria for their application, the multicriterial character of PPTs seems to go beyond a simple claim of there being $n + 1$ dimensions which are composed to reach a judgement of, e.g., largeness, or a multiplicity where one criterion alone can dominate a judgement, as in *healthy with respect to blood pressure.* First, because when it comes to taste or beauty, every collection of dimensions one could specify could be contested as being an arbritary selection. But well, perhaps this vindicates the view concerning the plurality of dimensions involved in multidimensionals which sees this as an open-ended set, where no set of necessary and sufficient conditions can be given that exhaustively define the adjective. Second, when considering tests for multidimensionality[57] such as the co-occurrence with phrases like *with respect to, except for, in some/all/no respects*, we see that PPTs do not pass them. If one says something like *The cake is tasty with respect to X*, what seems to be implied is that the cake is actually not tasty *tout court*, the same goes for *beautiful.* If this is given in a description of the various aspects of the cake's overall tastiness, then this can work, but only as a highlight and not as a sufficient condition.[58]

All in all, it seems that we can align well PPTs to RGAs. We do not wish to hereby claim a full inclusion, that all PPTs are RGAs. But in the sequel, we will mainly focus on PPTs the use of which fits patterns for RGAs.

So we now turn our discussion to the features of PPTs that seem to make them stand out among other RGAs. Much discussion in recent years has revolved around two interrelated phenomena: evaluativity and subjectivity. In the coming two sections we introduce these, which requires a sharpening of each notion, and we discuss how these spread among different RGAs. As it seems, RGAs like, e.g., *tasty, skilful, tall* are not all evaluative in the same way, and they are not all subjective in the same way.

[56]Theoretically, we say, because one should not overlook that the fact that *salt, sugar* are uncountable nouns, and that it would be rather insane to try and count grains this way.

[57]Those proposed by Sassoon [2013] mentioned above.

[58]One could guess that PPTs are conjunctive (this notion comes from Sassoon [2013]), i.e., that PPTs require that an object is positively assessed in all respects. The problem is that, given the difficulty noted above in coming up with a satisfactory set of aspects or dimensions involved, the conjunction would not be finite.

2.2 Evaluativity in RGAs

The first reason to focus on RGAs is that these are evaluative. As it stands, this claim does not say much given that in recent years, semanticists have discussed evaluativity naming with this label different phenomena. A few keywords are arguably shared in these different uses, for what is evaluative tends to relate to norms,[59] to stand in contrast to matters of fact, and to somehow show people's preferences instead of independent states of affairs.

We briefly reconstruct three different ways[60] in which evaluativity as a concept has been discussed in semantics — as non-measurability, as metalinguistic change, as positive or negative valence — before we introduce our own take on the matter. For us, evaluativity is mainly related to a change in our expectations, expectations about things and about others. As we shall see, this way of understanding evaluativity is connected to the existing ones but also differs from them at a conceptual level, and at the level of what adjectives one ends up calling evaluative. It will be a first take only, it will be our task in the rest of the dissertation to work out this notion.

2.2.1 The dimensional/evaluative typology

Bierwisch [1989] coins the term "evaluative" to designate a subset of gradable adjectives, namely those like *charming, industrious, lazy, ugly*,[61] to set these apart from other gradable adjectives like *tall vs. short, expensive vs. cheap* for which he reserves the term "dimensional". While this typology is strongly motivated by, and buttressed in, a specific theoretical approach to gradability,[62] a few general traits identify those adjectives he calls evaluative.

First, Bierwisch's dimensional adjectives can be characterised in general terms as being associated with an objective scale along some dimension, e.g., height, cost, etc., which often has units of measurement, e.g., centimeters, cents, etc. Evaluative adjectives are not associated with such scales and do not have units of measurement — what would a unit of charm or industriousness be? Second,

[59] This formulation might suggest that AGAs are evaluative if one has read McNally [2011].

[60] This is certainly not meant to be an exhaustive list, only a review of related takes on the issue which we should put on the table in order to properly introduce our way of looking at this matter.

[61] Toledo [2011] suggests that the evaluative vs. dimensional distinction of Bierwisch can be assimilated to the absolute vs. relative distinction. However, Bierwisch's analysis simply groups evaluative adjectives together with partial absolutes (in the sense of Rotstein and Winter [2004]) like *bent or dirty*. See in Bylinina and Zadorozhny [2012] a corpus study of the empirical support for this analysis. Their raises doubts on Toledo's assimilation of evaluative and absolute gradable adjectives.

[62] Bierwisch [1989] adopts a degree-based account of gradability, and postulates putative differences in the scale structure of dimensional vs. evaluative adjectives. We present and this framework for gradability in chapter 3, subsection 3.1.2.

for evaluative adjectives antonymous pairs have a less obvious relation to each other — is *ugly* or *unfriendly* the antonym of *charming*? — than dimensional antonymous pairs. Third, unlike dimensionals, evaluative adjectives are not *per se* gradable; they *become* gradable after we order individuals within a class relative to each other regarding the degree to which they fulfill a certain property.[63] Fourth, the interpretation of dimensional adjectives like *tall* or *expensive* is always related to a comparison class that one has to decode.[64] We proceed differently when interpreting evaluatives: adjectives like *charming, industrious* do not require us to take into account a specific comparison class. In Bierwisch's own words, "[f]or some people to be tall there must be short people too, but for some to be industrious there do not need to be any lazy ones",[65] This means that two distinct processes are involved in the interpretation of dimensional vs. evaluative gradable adjectives.[66]

We believe that Bierwisch's notion of evaluativity is definitely interesting,[67] and it will remain in focus in the sequel. However, we will not endorse this notion of evaluativity as such. Besides the fact that as the typology is partly rooted on a theoretical approach to gradability we will contest, the degree-based approach, this notion of evaluativity does not apply to an adjective like *heavy* unless we accept that *heavy* is ambiguous or polysemous.[68] Given that distinct interpretation processes and lexical specifications characterise dimensionals and evaluatives, if we consider *Alf finds this suitcase heavy* where what matters is not the suitcase's weight as measured in kilograms but how it feels, here *heavy* has evaluative and not dimensional meaning. Thus, it seems, the meaning of this adjective when it is simply related to how we order individuals within a class relative to each other differs from when used when we order individuals within a class relative to, e.g., a centimeter. As we see it, the latter is actually

[63]Cf., Bierwisch [1989], p. 200-201.

[64]Rett [2008]'s notion of evaluativity is actually another name for what Bierwisch [1989] calls norm-relatedness. Dimensionals and evaluatives can have norm-related readings, in the sense that their interpretation may require a comparison with a contextually determined standard of the relevant gradable property. So Rett calls evaluative all adjectival constructions in which reference is made to a threshold depending on a comparison class. Her use of the term is somewhat confusing, given that norm-relatedness is not the same as what Bierwisch [1989] calls evaluativity. More on her view below in subsection 2.2.4.

[65]Bierwisch [1989], p. 89.

[66]As Toledo [2011] also notes.

[67]Plus, this notion of evaluativity comes back in several of the proposals we examine in the next chapter, for instance in Kennedy [2013] and in Umbach [2014].

[68]To be more precise and careful, one should speak of 'underspecification' instead of ambiguity or polysemy, partly because this is actually how the issue is introduced by Bierwisch (as underspecification of the dimension of evaluation of a gradable adjective), partly because linguists still disagree what exactly is at issue with adjectives like heavy (polysemy, lexical ambiguity, shifts in basic meanings due to generative rules, etc.) We will refer to the issue as polysemy in the sequel because this is how it has been picked up in the literature on PPTs (in particular by Kennedy [2013]) which we will further discuss in subsequent chapters.

a refined instance of the former, and for that reason we think one should not simply postulate a case of polysemy for this leaves the relation unexplained. Our discussion of this notion of evaluativity will be continued in subsequent chapters, given the role it has played in recent semantic analyses of PPTs.

2.2.2 Evaluativity as metalinguistic usage

In recent years, it has been claimed that vague adjectives, and among those RGAs like *tall* and like *tasty*, are evaluative in that they have metalinguistic effects.[69] That is, if one says *Alf is tall*, one may be either describing Alf as regards his height, or one may be telling one's interlocutor what counts as being tall in a given context. In this way, *tall* can be used to fix the meaning of the term, to signal that appropriately using this adjective requires that its denotation encompasses individuals whose height matches Alf's.

We do not follow this view on evaluativity. On the one hand, we think that the separation of these two effects or uses is theoretically interesting but somewhat artificial, for these expressions carry both effects or uses at once. On the other hand, we believe this is a feature that is, in a sense, rather ordinary. Not only can RGAs, PPTs and non-PPTs alike,[70] be seen as evaluative in this guise. Identity statements can also be used in this way, to fix the meaning of one term in terms of the meaning of the other,[71] and so can any regular description like *This is a chair* whenever the denotation of the noun *chair* is under debate.[72]

So while we do think that metalinguistic effects are present for RGAs, we also think that this is not a special trait of this family of adjectives. In subsequent chapters such effects will sometimes enter our discussion, but this will not be the notion of evaluativity we will adopt in this investigation.

2.2.3 Evaluativity as valence in attitude

We reconstruct here yet another way in which evaluativity has been recently understood in semantics.[73] Certain terms are evaluative, it is thought, because they express the speaker's attitude towards the thing she is assessing or the information she is conveying. They show the speaker's positive or negative attitude, her appreciation. In this sense, adjectives like *good vs. bad* would be perhaps the most obvious cases, along with aesthetic adjectives like *beautiful, great, mediocre*,[74] and

[69] This use of the term 'evaluative' can be traced back to the role of Stalnaker [1979] diagonal proposition. It is also discussed by Kyburg and Morreau [2000], Barker [2002], Krifka [2012], and adopted for PPTs by Barker [2013].

[70] As Barker [2013] himself argues.

[71] As Van Rooij [2011b], sec. 3 notes.

[72] Cf., Umbach [2014], p. 11.

[73] This notion has been used in particular by McNally and Stojanovic [2014] but one could speak of evaluativity in this sense in quite an intuitive way.

[74] McNally and Stojanovic [2014].

adverbs like *remarkably, surprisingly, unacceptably.*[75]

We believe this notion is quite intuitive but it has its shortcomings as characterised here. On the one hand, this definition restricts the attitude to that of the speaker, where it is clear that, e.g., in questions such as *Do you think that Picasso is beautiful?* and in many other contexts, the attitude that one is interested in is the addressee's. On the other hand, it is not clear how this definition can work as a criterion. It may be easy to accept that, e.g., *tall* does not have a distinct valence in attitude associated to it. But why, for instance, would an adjective like *helpful* not be evaluative? Can't one speak of an entailment of approval or commendation towards anything qualified as *helpful*?[76]

Given these shortcomings, we will not endorse this notion of evaluativity as such, but rather elaborate it further, to see what it means for certain expressions to come with an appreciation. This notion of evaluativity also makes it most patent that this phenomenon and that of subjectivity, to be discussed in section 2.3, are related. Of course, how is it that they are related is an issue, one that we investigate in the sequel.

2.2.4 Evaluativity and what we (don't) expect

Now that the reader sees how evaluativity has been conceived of so far, we wish to introduce a different notion of evaluativity. The core of this idea comes out the following observation: when using RGAs such as *tall, expensive, fast*, one does something else than just make imprecise qualifications.[77] If I am told, for instance, that Alf completes a marathon in less than three hours, I may wonder whether Alf is fast as a runner. So I may ask: *Is that fast?* My question shows that I am not sure about what one should expect of a marathon runner, I do not know what is normal in this case. And this normality is not always related to a threshold set by a comparison class. As Fara [2000] suggests, an exclamation like *Wow, you are so tall!* or *How tall you are!* is appropriate when something deviates significantly from what we expect, even if the person we judge is actually short for her age, i.e., below a threshold issued by the comparison class she belongs to. So we can use RGAs like *tall* and *fast*, and not only more obviously valence-laden adjectives like *skilful* and *tasty*, in *wh*-exclamatives. This is something we cannot do with NGAs, and which is quite difficult for some AGAs, unless we force them into to a relative interpretation (as in example f):

(24) a. What a tasty dessert you prepared!
b. What a stupid man he is!
c. How tall you are!
d. (?) What a digital watch this is!

[75] Cf., Morzycki [2004], De Vries [2012].
[76] McNally and Stojanovic [2014] in particular exclude *helpful* from their list of evaluatives.
[77] This idea comes from Veltman [2002], who finds his inspiration in Themerson [1974].

e. (?) What a closed door this is!
f. How dry the cake was!

Of course, one may wonder whether appearing in *wh*-exclamatives is a test of evaluativity. We believe it can work for evaluativity as we understand it here. There seems to be some consensus about how exclamatives express that something challenges or modifies our pre-existing expectations.[78] In this guise we wish to say, all RGAs are evaluative, including those which Bierwisch calls 'dimensional', like *tall* or *expensive* and those he calls 'evaluative' like *industrious, lazy* or *skilful*. But are all RGAs evaluative in the same way?

The preliminary distinction we want to draw here concerns the comparative form, and at this point Bierwisch's observations come in handy. Those RGAs he calls dimensional like *tall, expensive* are easily associated with a public, conventionalised method of measurement, like using a meter or counting cents or dollars. In this sense, we have a means to agree on whether, e.g., Alf is taller than Bea which is not available when it comes to comparing whether a cake is tastier than a pie. We will call adjectives like *tall* weakly evaluative, and those like *tasty* strongly evaluative. We will not claim that adjectives belong essentially to one or other category, this will turn out be a matter rooted in epistemological rather than in linguistic considerations, a discussion we will offer in chapter 4. Here we just sketch the basic idea, and briefly indicate where we meet and where we depart from the notions sketched in previous subsections.

For weakly evaluatives like *tall*, we may say that, e.g., *Alf is tall* when Alf is is taller than we expect. One may want to assume, as many do,[79] that what we expect is given by a standard or threshold. However, as Fara's example shows, some evaluations are fine even when what we assess does not instantiate a property beyond a standard. What we expect as normal and what we recognise as a standard value need not always coincide. Weakly evaluatives, in this sense, resemble non-evaluative claims as characterised by the valence view: that something is above or below the height we expect it to have does not mean much in terms of how we appreciate that, what attitude we have. Is it good or bad that Alf is tall? No entailments of this sort seem to be made here. Still, in a sense, *Alf is tall* is evaluative: it tells you something about how Alf stands with respect to our expectation patterns.

For strongly evaluatives like *tasty* or *beautiful*, we believe expectations also play a crucial role, but one which is different to noticing that something changes our pre-existing expectations as for weakly evaluatives. Expectations here play a normative role, not in shaping our epistemic attitude towards the world in terms of changing what we know about it, but rather by shaping our interlocking with others, what we expect of our interlocutors. When we say *This dessert is tasty* or *This Picasso is beautiful*, we expect other people to partake in our

[78] Cf., Castroviejo-Miró [2006], Rett [2008], Chernilovskaya [2014].
[79] For instance, Rett [2008].

judgement. This sanctionative role is marking that something stands out, not because of its abnormality, but because it poses certain demands on others that binds us together, that is there for us all. We do not expect cakes to be normal or paintings to leave us indifferent. When we are not indifferent, our judgement has a certain valence but, furthermore, we expect others to align with our judgement. This is something we do not necessarily do when we say that something is heavy or expensive, for a very strong or a very rich man are naturally not expected to judge as we do.

Now is is *skilful* weakly or strongly evaluative? How about *intelligent*? The question whether an adjective is weakly or strongly evaluative is not one we can systematically answer. We can associate points in a scale, e.g., in a piano competition, or points in an IQ test. In the end, this is not so different from assigning points to different features of a wine when using a specific scoring system,[80] and then asking whether such systems are part of the meaning of the adjective *tasty* or *good*. We will not attempt to answer this question here, but rather indicate that doing so would require that a difference in such scores could settle a dispute about whether Alf is more skilful or intelligent than Bea, something which we discuss further in the coming section.

Anyway, much more will be said in subsequent chapters about this distinction between weakly and strongly evaluatives, and in that way we hope the reader shall see that we are not just inventing new labels to rename Bierwisch's dimensional vs. evaluative typology, and she will see why evaluative judgements, i.e., claims featuring RGAs which are evaluative in the sense sketched here, are not simply concerned with the denotation of a predicate of the language. It is now time to turn our attention to subjectivity.

2.3 Subjectivity in RGAs

Besides giving a few examples, what we said above is that PPTs can express an experience, a sensation, a feeling, or a sentiment. Here we put together three features (this is not meant to be an exhaustive list)[81] that are meant to be markers of an adjective's subjectivity, and discuss to what extent these are characteristic of PPTs or whether they also concern other RGAs. We are, as it is to be expected, not the first who enumerate features of subjectivity. Our discussion, however, deviates at certain points from what the reader will find in the existing literature, and we shall point that out where relevant.[82]

[80]For instance, the Davis 20-point scoring method.

[81]An interesting feature left aside here for reasons of space is what Bylinina [2014] calls purpose-relativity, i.e., the fact that one can say *"War and Peace" is a slightly long book to read in one week*. The *to*-prepositional phrase here introduces a purpose or goal which can be seen as being, in some sense, subjective.

[82]A small digression. In Japanese, there is a grammatical subdivision between subjective and objective adjectives. (Cf., Backhouse [1994]) Subjective adjectives have a syntactic feature: in

The first feature we will consider concerns so-called faultless disagreement, discussed in subsection 2.3.1, the situation in which two interlocutors contradict each others' judgements, where none of them seems to have arguments at her disposal to prove the other one wrong. We shall agree with others who have claimed that faultless disagreement can take place for PPTs in positive and comparative form, but only extends to those adjectives we have called weakly evaluative when they are in positive form. The second feature relates to embeddings under attitude predicates like the English *find*, presented in 2.3.2. These are uses of the verb *to find* where a non-finite clause is embedded, as in *I find this cake tasty* or *She finds this suitcase heavy.* For our own ease we will call sentences of this sort restricted judgements, in contrast to unrestricted judgements like *This cake is tasty* or *This suitcase is heavy.* We will disagree here with those who exclude the comparative form of adjectives like *long* from restricted judgements. Our point in subsection 2.3.3 will be touch upon the relation between unrestricted and first-person restricted judgements. While for strongly evaluatives like *tasty*, unrestricted judgements seem to entail first-person restricted judgements, this is not the case for weakly evaluatives like *long.*

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declarative sentences they may be predicated directly only of first-person experiencers. Thus, (b) and (c) below are marked as ungrammatical:

(i) a. Boku wa samui.
I am cold.
b. *Kimi wa samui.
* *You are cold.*
c. *Ano hito wa samui.
* *She is cold.*

To express the second and third person cases, one needs to employ presumptive or evidential constructions, reported speech, or the use of a derived verb formed by the suffixation of -GARU:

(ii) a. Kimi/Ano hito wa samui-daroo/samusoo da.
You/he/she must be cold/look(s) cold.
b. Ano hito wa samui to itte iru.
He/she says that he/she is cold.
c. Ano hito wa samugatte iru.
He/she is showing signs of feeling cold.

According to Backhouse, Japanese PPTs *oishii, umai* (*tasty, good-tasting*) and *mazui* (*unpalatable, bad-tasting*) fall under this category. This means that it is not grammatical to say *She finds this tasty* or *This is tasty to her*, and one should make explicit reference to the agents' external manifestations, using the derivational morphology: *oishigaru, umagaru* (show signs of finding good-tasting) and *mazugaru* (show signs of finding bad-tasting). PPTs in English do not have similar grammatical constraints. We would like to note at this point that unlike Japanese, where the subjective adjectives form an identifiable category, English does not come with a standard classification of adjectives as being subjective. The diagnostics we give below are not intended to specify criteria for identifying such a class.

2.3.1 Faultless disagreement

One of the core features identifying adjectives which are in some sense subjective is a certain species of disagreements, dubbed in the recent literature in semantics "faultless disagreements".[83] These are exchanges ending up in dead-ends, where speaker and addressee contradict each other but where none of them can be proved to be wrong by his interlocutor. Typical examples are:

(25) a. Alf: This cake is tasty!
Bea: No, it's not!
b. This cake is tastier than this pie!
Bea: No, it's not!
c. Alf: This Bordeaux is tasty for a supermarket wine.
Bea: No, it's not.

It seems such disagreements are special because Alf and Bea are both in some sense right, hence the faultlessness, even though Bea asserts the negation of the proposition asserted by Alf, hence the disagreement. (We said "it seems" because, as we shall see in chapter 3, there are those who think that these disagreements are only apparently special or faultless.)[84] For now, the description given above suffices to single out a distinction between these disagreements from those we may have with NGAs, or when comparing two definite amounts, e.g., weight or time measurements:

(26) a. Alf: This woman is pregnant.
Bea: No, she's not!
b. Alf: This morning you arrived later than yesterday.
Bea: No, I didn't!

In these examples, Alf or Bea can in principle be proved to be wrong by his interlocutor, they just need to perform a blood test or check time stamps.

Note that for weakly evaluatives like *long, heavy, rich* one could also run into similar disagreements.[85] RGAs can be associated with a measurable dimension like length or weight but they can also express an experience, a sensation, a feeling, or a sentiment.

[83]The label comes Kölbel [2004], although the notions also features in Wright [1992, 2006]. It was applied to the case of disagreements about taste by Lasersohn [2005] because in examples such as those in (25) apparently neither party to the dispute is at fault.

[84]Among others, Stojanovic [2007], Moltmann [2010], Smith [2010], Umbach [2014], who claim that in such disagreements, like in any other disagreement, one of dialogue participants says something true and the other one something false. According to them, the diagnoses of faultless disagreement are due to a misconception due to a bird's eye perspective on the exchange, and it is normally explained away by appeal to pragmatic or otherwise non-semantic mechanisms. See chapter 3, subsection 3.2.1.

[85]Already noted by Fara [2000], Richard [2004], Kennedy [2013], Bylinina [2014].

(27) a. Alf: That's a long trip!
Bea: No, it's not!
b. Alf: This suitcase is heavy!
Bea: No, it's not!

One may want to argue that the apparent faultlessness can be removed if one discovers that Alf and Bea have in mind different comparison classes, i.e., the trips or suitcases they have in mind when making such judgements. But as example (28) from actual use shows,[86] an adjective like *old* can lead to a dead end, just like evaluative disagreements concerning taste:

(28) G: ... but it's not bad for an old lady.
C: You're not old, Grandma ...

The dialogue participants may have opposing views even if they agree on all facts, i.e., on grandma's age and on the relevant comparison class (old ladies). So for the positive form, RGAs like *old* can lead to faultless disagreements. Gradable adjectives in comparative form may, for a while, lead to similar dead ends, as when Alf reports her experience of lifting two different objects, or when Alf and Bea are food critics discussing about two desserts, and Bea openly disagrees:

(29) a. Alf: The box is heavier than the suitcase.
Bea: No, it isn't!
b. Alf: The cake is denser than the pie.
Bea: No, it isn't!

However, after a measurement of the weight of the box and the suitcase, or of the relation of the mass divided by volume of the cake and the pie, either Alf or Bea will have to give in, so the faultlessness phenomenon disappears here. What Alf may do is retreat to a restricted judgement, to a statement of how they find things instead of how they are, as in *Well, I find the box heavier than the suitcase.* So *contra* Kennedy [2013], we claim that the comparative form of these adjectives does not lead to faultless disagreement. Even if one distinguishes two different interpretations for *heavy* or *dense*, one related to measurement and another one related to experience, along the lines of Bierwisch [1989].

Now, can faultless disagreement arise with adjectives like *skilful* or *intelligent*? We might want to apply to these cases the lesson we learned for weakly evaluatives and say that this may only happen for the positive, and not for the comparative form. However, here we see that even if someone tries to get out of a dead end in an argument as in example (30) by bringing up an IQ score, Alf may just retort that IQ scores are a partial and limited means to measure performance related to analytic skills and which ignores all sorts of traits of intelligence that fall outside of the scope of such tests.

[86] From Pomerantz [1984], p. 85, ex. 62.

(30) a. Alf: Abe is more intelligent than Bert.
Bea: No, he isn't! He scored lower in the IQ test!

So could this be the end of a potential faultless disagreement? This very much depends on context, it would only work if it is clear beforehand that Alf and Bea are discussing intelligence as rendered by IQ scores.

One may want to call faultless disagreement a situation where different values and relative precedence are assigned to the different components of a multidimensional adjective, as when Alf and Bea disagree whether a box is big (see the example given at the end of 2.1.2). In such cases, both for the positive and the comparative, it seems that it is not hard to get out of an apparent *cul-de-sac*, namely, by making explicit which dimensions one gives precedence to. This option seems simply unavailable in the cases involving *tasty* or *old* given above.

So faultless disagreements are disputes involving PPTs or other RGAs that are very difficult to resolve, and resolving them in any case takes more than discursive persuasion, more than explaining one's own understanding of the dimensional composition as one could perhaps do for multidimensionals.

2.3.2 Embeddings under *find*

It has been noticed that attitude verbs[87] like *find* in English[88] admit embedding non-finite clauses featuring PPTs, for instance:[89]

(31) a. I find this cake tasty.
b. She finds Gouda a boring town.

Special about restricted judgements, where the verb is stative, is that they seem to convey the sentiment or view of a specific agent or group thereof, the matrix subject, and in this sense they seem to work as a test for subjectivity. In this sense, NGAs cannot be embedded. It is widely claimed that AGAs cannot be embedded either, but this is not true for all of them:

(32) a. (?) I find this watch digital.
b. (?) She finds Alf Bald.
c. Bea finds Budapest dangerous.

[87]Since Sæbø [2009] many authors call these "subjective attitude verbs" because these are believed to select for subjective predicates understood as being judge-dependent. Because we will contest judge-dependence as the right view on subjectivity in subsequent chapters, we believe it is safer not to follow the standard label for these verbs to avoid possible confusion.

[88]Similar to *trouver* in French, *vinden* in Dutch, or *finden* in German. Some authors also include the English verb *consider*, but we can say for instance *I consider the Earth flat* but not *I find the Earth flat*.

[89]See Stephenson [2007], Sæbø [2009], Kennedy [2013]. Here we are not discussing these authors account of why PPTs can be embedded under *find*. We will discuss that in chapter 3.

In contrast, *find* as achievement verb means roughly *declare* or *discover*:

(33) a. The jury finds the defendant guilty.
b. I found the drawer empty.

One may think that that restricted judgements mean the same as judgements in which an experiencer argument is made explicit by way of a prepositional complement *for/to*:

(34) a. This cake is tasty for me. $\stackrel{?}{=}$ I find this cake tasty.
b. This joke is offensive to us. $\stackrel{?}{=}$ We find this joke offensive.

However, such phrases have a more limited distribution among RGAs than embeddings under *find*. We can say *I find Alf smart* but *Alf is smart to me* is not ok,[90] or *I find this painting beautiful* but not *This painting is beautiful for/to me*.[91] Why do we focus on *find* rather than focus on prepositional complements *for/to* introducing an experiencer argument? Because one can surely consider that *smart* or *beautiful* involve an opinion or a feeling held by the matrix subject when embedded under *find*.

While one may think that *find* is a propositional attitude of a specific sort,[92] it is instructive to see that *I find this tasty* is not simply equivalent to *I find that this is tasty*. Think of a newborn baby, Anna. One can easily say: *Anna finds infant formula tasty*. But not: *Look! Anna finds that infant formula is tasty.* While the latter implies the former, the reverse is not true.[93] We shall argue in the sequel that the attitude verb *find* seems to relate the matrix subject to a non-propositional object which is an extralinguistic entity.

Note that the case of an outright denial of a restricted judgement as in (35) is rather odd.[94]

(35) Alf: I find this cake tasty.
Bea: No, you don't!

Even if such an exchange could take place in a very specific setting,[95] it is very hard to make something out of it. However, when the restricted judgement reports

[90] See Bylinina [2014].

[91] As McNally and Stojanovic [2014] indicate.

[92] As proposed by Sæbø [2009] and Stephenson [2006, 2007]. This is partly suggested by the fact that, e.g., the French attitude verb *trouver* very easily accepts *that*-clauses to express one's opinion, as in *Jean trouve que Paul a une belle voiture*.

[93] This is in contrast to apparently similar cases which are in fact independent, as that of perception verbs embedding small clauses vs. embedding that-clauses: *John heard Mary loose her voice* does not imply *John heard that Mary lost her voice* nor does the latter imply the first.

[94] As Umbach [2014] notes.

[95] This could happen if Alf suffers from frontotemporal dementia, which has been found to bring about alterations in aesthetic and gustatory judgements (as claimed in M. Simpson's work at the Berkeley Psychophisiology lab, p.c.)

on a third-person's opinion like in (36), the oddness goes away:

(36) Alf: Abe finds this cake tasty.
Bea: No, he doesn't!

This case may naturally arise when the dialogue participants have different evidence concerning Abe's preferences.

Now consider RGAs which are not clearly PPTs, like *long, hot, heavy*. Attitude verbs such as the English *find* also admit embeddings with such RGAs, both in positive and in comparative form.

(37) a. Alf finds that house expensive.
b. I find the box heavier than the suitcase.
c. [Looking at fig. 2.1 I find the segment in the image above longer than the one in the image below.[96]

Figure 2.1: The Müller-Lyer illusion.

In these examples, the assessments run independently of what the fact of the matter may be. These assessments do not describe physical properties. They are *not* made in virtue of a measurement or otherwise conventional procedure. We may be surprised by the weight of the suitcase being much less than we expected, we may discover that the box and the suitcase have equal weights, or that the segments in the Müller-Lyer arrows are equally long. Our assessments in the examples in (37) say something about how things feel or look, how they are presented to us.

It is relatively common among semanticists to make room for such comparative statements only when one endorses the polysemy suggested by Bierwisch's work.[97] We want to keep this chapter as descriptive as possible, and for that reason we think that this is not the point where that hypothesis should be discussed. All we want to say here, pointing at some of what we said in the previous subsection, is that *if* it turns out that, e.g., the box and the suitcase have equal weights, then

[96] One may think this is a bit of an unnatural way of saying *The segment in the image above looks longer than the segment in the image below*. Here we will not worry too much about this, mainly because if one used the French *trouver* (as in *Je trouve le segment de l'image du haut plus long que le segment de l'image du bas*) or the Dutch *vinden*, which are thought to work like *find*, we would have no such qualms.

[97] In Bierwisch [1989], followed by others Kennedy [2013], Bylinina [2014], Umbach [2014]. See our provisos and warnings concerning the use of the expression 'polysemy' here given in fn. 68 above.

we *have to* retreat to a restricted judgement like *I find the box heavier than the suitcase.* So even if we can distinguish a sense of *heavy* associated to a scale with the one saying that something requires lots of effort to move or lift, these two are *not* independent. Moreover, the fact that certain multidimensional adjectives whose separate dimensions can be measured may be embedded in comparative form under *find*,[98] like *find bigger* or *find larger*, indicates that non-measurability is not the criterion deciding what can be embedded under such attitude verbs.

Is a first-person restricted judgement an explicit form of something which remains hidden in an unrestricted one? How one accounts for the subjectivity of unrestricted judgements may lead some to believe this. But consider the following examples:

(38) a. This wine was tasty, now it isn't.
b. I found this wine tasty, now I don't.

In (38-a) it is implied that something about the wine has changed. Suppose *This wine was tasty* is actually just a shorthand for *I found this wine tasty.* The one would expect the same implication in example (38-b), but it is more or less clear that this is not implied. Something has changed in how the agent assesses the situation, a change which may be explained by, e.g., her having eaten chocolate in between her sips of the wine. This explanation is unavailable for example (38-a). In the sequel we will not really focus on matters of tense, but the examples above show that one should be skeptical of any claim to the equivalence of unrestricted and first-person restricted judgements.[99]

2.3.3 Implications and contradictions

The following observations point at a specific connection between restricted and unrestricted judgements, one that does not spread equally among all RGAs. The point is that for strongly evaluative gradable adjectives, and not just for PPTs, unrestricted judgements seem to imply first-person restricted judgements.

[98] As McNally and Stojanovic [2014] note.

[99] Conversational analysts have studied unrestricted and restricted judgements as they are used in actual eating practices. (They call these sorts 'objective' vs. 'subjective' respectively. Pomerantz [1978], Potter [1998], Wiggins and Potter [2003]. According to Wiggins and Potter [2003], for instance, objective evaluations suggest describing a feature of the referent (*That sandwich is very tasty*), whereas subjective ones index a privileged preference or dislike towards the referent. Here we stick to our own terminology to avoid confusion.) Their work provides insights into the type of dialogue practices in which they occur. Wiggins and Potter [2003] analyse a corpus of family mealtime dialogues and show that unrestricted and restricted judgements are used to perform different types of acts when evaluating food. Unrestricted assessments can be perceived as compliments and can be used as attempts to persuade. In contrast, restricted assessments are not used for complimenting or persuading but function well as, e.g., refusals to offers. See Crespo and Fernández [2011] for a preliminary formal approach to the semantics of PPTs and to the use of these in dialogue inspired by this line of work.

(39) Alf: This is tasty but...
  a. (?) I don't find it tasty.
  b. ...she doesn't find it tasty.

This asymmetry between first- and third-person restricted judgements is remarkable, as shown in the acceptability of a sequence like (39-b).[100] It is apparent that the unrestricted judgement comes with a first-person commitment of the speaker.[101] There is here a requirement that the speaker has had relevant experiences, which would be precisely what first-person restricted judgements would express.[102] As Pearson put it: "If I have good reason to believe that shortbread is tasty, say because a reliable expert has told me so, I might say, *Apparently, shortbread is tasty*, but not, *Shortbread is tasty.*"[103] As she notes, this requirement goes beyond PPTs, applying for instance as well for adjectives like *tired*.

Note that the contradiction disappears if we prefix the unrestricted judgement with *Presumably*, as in *Presumably, the cake is tasty but I don't find it tasty*, or if we replace the unrestricted judgement with a generalisation via a restricted judgement, as in *People find this cake tasty, but I don't find it tasty.* This shows that *This is tasty* and *People find this cake tasty* are not equivalent, just in case one thinks that example (39-a) is not a contradiction because Alf may be reporting the results of a survey.

This seeming implication between unrestricted and first-person restricted judgements, and the experience requirement, does not extend to RGAs like *expensive, heavy, long*. We need not have lifted a suitcase to say *That's heavy*, for instance if we consider its weight as measured by a scale. Having relevant experiences is thus not always needed in order to make a sincere judgement of this sort. The contradiction in example (39-a) does not arise for weakly evaluatives, as illustrated in example (40).

(40) a. It is an expensive house but Alf doesn't find it expensive.
  b. The box is not heavier than the suitcase but I find it heavier.
  c. [Looking at fig. 2.1 on p. 37.] I find the segment in the image above longer than the one in the image below, but in fact it isn't.

[100] Pearson [2013a] makes a similar remark but focusing on a slightly different example:

(i) Alf: The cake that Mary and I ate was tasty, but...
  a. (?) I did not like it.
  b. she did not like it.

We prefer to keep our own example because the presence of past tense in Pearson's creates some unnecessary noise. Still, the point she draws from it is the same as ours.

[101] Cf., Pearson [2013a], Moltmann [2010], Egan [2010].

[102] This is also related to Stephenson [2006, 2007]'s requirement of having "direct evidence", an idea we will question later on because of the status of *evidence* of experience.

[103] Pearson [2013a], p. 15/52.

No major conflict arises here, although a certain awkwardness is felt, a mismatch between experience and facts.

There might be some hesitation as to whether the contradiction in example (39-a) is semantic or pragmatic in nature.[104] A clue pointing in the direction of a semantic phenomenon here is shown by the fact that when embedded in the antecedent of a conditional the incoherence remains, similar to what we see in epistemic contradictions[105] and in contrast to a regular Moore sentence:

(41) a. (?) If this is tasty but I don't find it tasty, then I'll miss a great dessert.
b. (?) If it is raining and it might not be raining, then I'll get wet.
c. If it is raining and I don't believe that it is raining, then I'll get wet.

Once more, one may think that example (41-a) is actually acceptable, but this works only if one is tempted to take *This is tasty* and *People find this cake tasty* to be equivalent. We will systematically refrain from this temptation in the sequel.

We conclude with a brief recap. Three features of subjectivity have been presented. First, while PPTs among other strongly evaluatives run into faultless disagreements in the positive and comparative form, this only happens in the positive form for weakly evaluatives. Second, we can embed under the attitude verb *find* RGAs in the positive and in the comparative form, regardless of whether they are strongly or weakly evaluative. Third, an unrestricted judgement seems to imply a first-person restricted judgement for strongly evaluatives only.

2.4 Conclusion and work ahead

Upon closer look, PPTs seem to share a number of features with other RGAs. PPTs and RGAs which are not primarily associated with our experiences or opinions, at least not for semanticists, fit some of the diagnoses for subjectivity. An account of subjectivity in gradable adjectives needs to make room for this complex connections. In the following chapter, we will discuss some of the main theories on gradability and on PPTs, and the idea of subjectivity they develop. The phenomena in the present chapter serve as an initial benchmark.

[104] Pearson herself makes a comment in this respect in her fn. 13.
[105] Cf., Yalcin [2007].

Chapter 3

Theories on gradability and on PPTs

Our research question is crossed by two orthogonal debates. On the one hand, there is the discussion of how to model adjectival gradability. In section 3.1 we consider two central positions: degree-based[1] vs. delineation-based approaches. On the other hand, there is the debate on how to model the subjectivity of predicates of personal taste (PPTs, for short). In section 3.2, we examine some of the main approaches: contextualism, relativism, absolutism and expressivism. In section 3.3 we give a more comprehensive philosophical argument for why the semantic approaches to gradability and to PPTs reviewed here are not best suited to accommodate subjectivity. When subjectivity is conceived as judge-dependence, one loses grip on intersubjective understanding. Subjectivity is profiled under a truth-conditional approach to natural language meaning becomes objectivised.

3.1 Main approaches to gradability

Semanticists have proposed different theories concerning gradability in the adjectival domain and beyond.[2] We start with a few interesting observations of early works in the semantics of gradable adjectives in subsection 3.1.1. Then we focus on the main conceptual features of two dominant trends,[3] and on examples of how they propose to handle PPTs. We sketch the core of degree-based accounts in subsection 3.1.2, and of delineation-based accounts in subsection 3.1.3, and we offer critical observations on how each of these perspectives purports to handle subjectivity. Some of our observations are specific for each of these approaches, others are common to both.

[1] The arguments against the degree-based view had their first elaboration in Crespo [2010].

[2] Gradability is actually a broader phenomenon going beyond the adjectival domain.

[3] These are not the only semantic approaches to gradability, of course. See for instance a trope-based approach in Moltmann [2009] and a probabilistic approach in Égré [2011], Égré and Barberousse [2014], and Lassiter [2011]. We do not include them in the review offered in this chapter only for reasons of space.

3.1.1 Early works

Our goal is not to give an exhaustive genealogy of adjectival gradability in semantics, but just to give a short reference to a few observations from early works that are relevant for the issues we will discuss later on.

In his seminal work on grading in semantics, Sapir claims that "grading as a psychological process [...] precedes measurement and counting [...] [J]udgments of quantity in terms of units of measure or in terms of number always presuppose, explicitly or implicitly, preliminary judgments of grading."[4] In this sense, he can be seen as standing against those claiming that gradable adjectives denote measure functions.

Interestingly as well, Sapir relates grading to directionality that has an impact on a "latent affect of approval or disapproval"[5] that certain grading items bring with them, where, e.g., *a few* is thought to have a disapproval ring due to its downward directionality, whereas an expression like *more than* comes with an approval ring due to its upward directionality. This seems to relate to the idea of evaluativity as valence in attitude we referred to in chapter 2, subsection 2.2.3.

A basic distinction made by Cruse that will come to be relevant for PPTs later on in this chapter is that between propositional and expressive meaning. Example (1) is given to make this contrast clear:[6]

(1) a. I just felt a sudden sharp pain.
b. Ouch!

Case (1-a) illustrates what Cruse calls propositional meaning which determines truth-conditions while case (1-b) does not.[7] While these two semantic modes may co-occur, for instance in *Arthur has lost the blasted key* as opposed to *Arthur has lost the key*, expressive meaning does not play a role in determining a statement's truth-conditions.[8] A similar claim will be made by expressivist positions on PPTs presented in subsection 3.2.4 below.

We now turn our attention to two different approaches to gradability: degree-based and delineation-based. The first of this claims, *contra* Sapir, that measurement is the very backbone of gradability.

[4]Sapir [1944], p. 93.
[5]Sapir [1944], p. 108.
[6]From Cruse [1986], p. 271.
[7]Partly due to the non-displaceability of expressive meaning. In Cruse's own words, a "characteristic distinguishing expressive meaning from propositional meaning is that it is valid only for the utterer, at the time and place of utterance. This limitation it shares with, for instance, a smile, a frown, a gesture of impatience." (Cruse [1986], p. 272) This explains why an example like (1-b) cannot (outside of direct quotation) be used to report on past events, attitudes, or conjectures.
[8]An adjective like *blasted* is also known as an *expressive*, usually grouped with epithets, interjections, derogatory words, etc. We will say more about expressives and their relation to PPTs in subsection 3.2.4 below.

3.1.2 Degree-based approaches

"Measure what is measurable, and make measurable what is not so."
Galileo Galilei

Degree-based views have become widely popular in linguistics, and a variety of theories has been developed in the literature. Here we present a relatively standard sample theory, where details concerning, e.g., syntax and contrasts between absolute vs. relative gradable adjectives will be put aside for these will not be crucial for the purposes of our discussion.

Degree-based approaches analyse gradable adjectives as relations between individuals in a domain and degrees.[9] Degrees are abstract representations of measurements of a property, which come organised in ordered sets called scales. All degrees on the same scale can be compared. For instance, an adjective like *tall* is associated with the scale of degrees ordered with respect to the dimension of height, so that *tall(x)* measures the degree to which x possesses the property of tallness. The truth conditions of sentences involving gradable adjectives are stated in terms of degrees. In the case of the comparative form, e.g., *Alf is taller than Bea*, we compare measures of particular objects. In the positive form, e.g., *Alf is tall*, we compare our measurement of Alf's height with a standard provided by a comparison class, a set of people whose height we compare to Alf's. This standard is thought to give a cut-off point in the denotation of the adjective *tall*, a crisp limit between its extension and its antiextension.

In recent formulations of this view[10] gradable adjectives denote measure func-

[9]Early works putting forward this view are found, for instance, in Bartsch and Vennemann [1975]. They took gradable adjectives to denote measure functions which determine the degree of the manifestation of a property in a given individual with reference to an average value provided by a comparison class. A sentence like *Alf is tall* amounts to the assertion that Alf is (significantly) taller than an average height set by context. A comparative sentence like *Alf is taller than Bea* is true if and only if the degree to which Alf is tall is greater than the degree to which Bea is tall. This simple approach quickly runs into trouble, for instance, when you consider a set of sticks whose height is not uniformly distributed. Suppose most sticks are short, and only one is very long. After you take the average, you would then be forced to say that some of the clearly short sticks are in the extension of *tall*. Cresswell [1976] also offers a degree-based theory, but constructs degrees from equivalence classes of individuals rather than from abstract measurements. For instance, the degree to which Alf is tall is given by the equivalence class consisting of all things which are neither less tall nor more tall than Alf. Cresswell assumes that the positive form contains a null degree morpheme *pos* (for "positive form") whose function is to relate the degree argument of the adjective to a contextually given standard of comparison. So actually the positive form is a covert comparative and the comparative form is basic. Other early analyses of gradability in terms of scales are found in Horn [1972], Seuren [1973], Gazdar [1979], von Stechow [1984], Heim [1985]. We do not review them here for reasons of space and because we focus on a few core ideas in this approach rather than on the subtleties of different formalisations.

[10]The core of this view can be identified with von Stechow [1984] and Heim [1985]. Nowadays it is most often associated with the more recent formulations in Kennedy and McNally [2005] and Kennedy [2007].

tions determining the degree of the manifestation of a property in a given individual. A scale is given by a set of degrees defining a dimension which is provided by the lexical semantics of the adjective. Measure functions are converted into properties of individuals by degree morphology. The positive form is actually a concealed comparative: roughly, the meaning of *Alf is tall* requires that we relate the degree argument of the adjective as applied to Alf to an appropriate standard of comparison set by the comparison class to which Alf belongs. Basically, the idea is this: *Alf is tall for a Dutch man* is true iff `degree`(tall)(**Alf**)> `standard`(tall)(**Dutch men**). Important for us is that for this view, relative gradable adjectives (RGAs hereafter) associate with open scales (i.e., scales which do not include their endpoints) and the standard is contextually set, meaning that they are not easily retrievable out of context as the standard for saying that, e.g., a door is closed.[11] Comparative degree modifiers like *more, less, as* simply compare the ordering of two or more degrees: whether one is above, below, or equally situated in the scale.

[11]Lots of the leverage of degree-based views like those in Kennedy and McNally [2005] and Kennedy [2007] reside in the idea that delineation-based accounts of gradability as we shall see in the next subsection are ill-suited to achieve an encompassing theory covering both relative and absolute gradable adjectives. Note that delineation-based views developed by Van Rooij [2011b] and Burnett [2012] address precisely of this problem, thus showing that the choice over a degree- vs. a delineation-based view on gradability should not be based on this idea. Kennedy and McNally [2005] argue that the difference between relative and absolute gradable adjectives is due to the interaction between the kind of scale underlying the adjective and the kind of standard. RGAs associate with open scales and the standard is contextually set. Absolute ones associate with with upper, lower-, or totally closed scales, and standards are usually given by minimal or maximal scale values. Standards are minimal when truthful applications of the adjective entails having the property in question to a minimal degree, as in the case of *wet* (e.g., a towel is wet iff it is minimally wet), and they are maximal when the corresponding entailments are maximal, as for *dry* (e.g., a towel is dry iff it is maximally dry). Evidence for this typology partly comes from the distribution of adverbs such as *slightly, completely, perfectly, almost*, etc., which select different points on the scale. See mainly Rotstein and Winter [2004]. But as McNally [2011] observes, this account makes little room for uses of absolute adjectives in which context seems to take precedence over the nature of the underlying scales. For instance, we say that a glass of wine is full even if it is not filled to its maximal capacity. So even if the underlying scale of *full* is closed, we need not always require that a wine is completely full in order for it to be considered full. McNally thus proposes to account for the relative vs. absolute distinction by inquiring into the nature of the properties that adjectives. Taking up rule- vs. similarity-based classification from Hahn and Chater [1998], She argues that absolute gradable adjectives denote properties which are established on the basis of a rule. In rule-based classification, we require a strict matching of specific criteria and the relevant properties of the object. This is different from classification by similarity, where only a partial matching of our representation of the properties of two individuals. RGAs involve this kind of classification. These different classification strategies are responsible for the difference in inferences and acceptable patterns we see for relative vs. absolute gradable adjective. It is remarkable how McNally's idea of absolute gradable adjectives resembles Bierwisch [1989]'s characterisation of evaluative adjectives. However, McNally does not explicitly endorse Bierwisch, so it is actually an open question whether she would see a difference between Bierwisch's idea of how *lazy vs. industrious* work and how McNally considers that *full vs. empty* work.

As advanced in chapter 2, Bierwisch [1989] suggests that RGAs can be further divided into two subclasses: dimensional and evaluative gradable adjectives.[12] Here we put the typology in the context of the degree-based view underlying this distinction. For Bierwisch, this typology basically relates to differences in how dimensional and evaluative adjectives refer to their underlying scales. For dimensional adjectives like *long vs. short, young vs. old, heavy vs. light*, members in these pairs operate on the same scale, so that antonymous pairs of adjectives like *long vs. short* are seen as duals on a single scale. Evaluative adjectives like *industrious vs. lazy, pretty vs. ugly*, however, are not associated with a scale and do not have units of measurement. Antonyms are not duals, for when we say that someone is lazy, we do not mean that this person has a certain degree of industriousness. So one can derive that *A is more industrious than B* implies that *A and B are industrious.* Bierwisch claims that evaluative adjectives are underlyingly not gradable, though they can used as gradable by forming degrees through equivalence relations given by the indistinguishability of two elements regarding how they instantiate the property of, e.g., industriousness.[13] Dimensional adjectives *can* have a secondary interpretation as evaluative adjectives.[14] This alleged polysemy[15] of some dimensionals becomes prominent in how Kennedy [2013] deploys Bierwisch's typology to account for the subjectivity of GAs.

According to Kennedy [2013],[16] faultless disagreements and embeddings under *find* are diagnostics of actually two forms of subjectivity. Both dimensionals and evaluatives can lead to faultless disagreement in positive form. However, comparative forms of dimensional adjectives do not give rise to faultless disagreement, according to him. Example (2-b) below leads to faultless disagreement only if *cold* is interpreted evaluatively, not if interpreted dimensionally. In example (2-a) there is faultless disagreement because *tasty* only has an evaluative interpretation.

(2) a. Anna: The tripe is tastier than the haggis.
Beatrice: No, the haggis is tastier than the tripe.
b. Anna: The tripe is colder than the haggis.
Beatrice: No, the haggis is colder than the tripe.

Meanwhile, according to Kennedy, *find* only selects evaluative adjectives. Example (3-b) is slightly off and example (3-c) definitively off if the adjectives are interpreted as dimensionals, but they are fine if interpreted as evaluatives:

[12] One might also think that *lazy, industrious* belong to a third class in between relative and absolute gradable adjectives. (Sassoon, p.c.)

[13] Gradability is thus achieved via degrees much as Cresswell conceives of them (cf., fn. 9).

[14] Cf., Bierwisch [1989], sec. 10.3.

[15] Note that here we speak of polysemy but this is actually how Bierwisch's view has been interpreted by Kennedy. We are aware of the fact that not every linguist will agree on this being a case of polysemy. Here we are simply reconstructing others' views, not really endorsing them. See further discussion in fn. 68 in chapter 2.

[16] Other accounts of PPTs also adopt degrees, see subsection 3.2.1.

(3) a. Anna finds her bowl of pasta tasty/delicious/disgusting.
b. Anna finds her bowl of pasta big/large/small/cold.
c. Anna finds the tripe colder than the haggis.

Kennedy assimilates Bierwisch's typology to the quantitative vs. qualitative distinction.[17] When an adjective is evaluative, it is subjective because it concerns the assessments of an object's qualities, a measurement which is judge-dependent. In this case, the truth of an assessment hinges upon whose opinion counts. This form of subjectivity is tied to the lexical semantics of PPTs: for Kennedy, evaluative adjectives require saturation by an individual-denoting expression (the name representing the judge) corresponding to the source of subjective assessment. A dimensional adjective concerns quantitative measurements of an object's property. This second form of subjectivity is due to the uncertainty concerning where a cut-off point may lie in a context. While dimensional adjectives like *rich* or *tall* only express a quantitative measurement, PPTs are evaluative, and other gradable adjectives like *hot, heavy, salty, sweet* are polysemous between an evaluative as well as a dimensional meaning. This is why we can embed them under *find*.

For Kennedy, faultless disagreement is a widespread pragmatic phenomenon related to vagueness. It can occur with lots of gradable adjectives, and not only with judge-dependent ones. Faultless disagreements with judge-*in*dependent gradable adjectives like *heavy, hot, expensive* in their dimensional sense can occur because we may agree on the relevant comparison class but still disagree about whether, e.g., Mary is rich, if we have different standards for what counts as rich, i.e., if we draw the line differently. In such case, "what is uncertain is a particular feature of the discourse: the precise value of the standard of comparison relative to which the extension of a vague predicate is determined."[18] In the case of evaluative adjectives like PPTs or like *heavy, hot, expensive* in their evaluative sense, faultlessness in a disagreement is due to our uncertainty about which dimensions

[17]Kennedy draws from his earlier work on colour adjectives in Kennedy and McNally [2010]. There they introduce the quantitative vs. qualitative distinction as a way to structure the ambiguity of colour terms they argue for, against Travis [1997] (although he already develops his argument in earlier works). In this dissertation we leave colour adjectives aside, despite the fact that one would think that colour words and other terms related to what modern philosophers called secondary qualities are natural candidates for subjectivity as in the case of PPTs. The first reason for this has to do with space. Semantic discussions around the case of colour adjectives are a debate of its own, and including it here in a fair manner is unfeasible. The second reason has to do with the discussion concerning whether colour terms pair up with absolute rather than with relative gradable adjectives. We would have to take a position in this debate, we believe, before deciding whether to include them here, given that we have chosen to put absolute gradable adjectives aside in our present investigations. Third, there are philosophical reasons to believe that colour words and other terms related to secondary qualities are not entirely similar to PPTs, given that for instance one can claim, e.g., *Alf's shoes are brown* on the basis of testimony, of someone else's report, whereas the same cannot be done for taste judgements like, e.g., *This cake is tasty* (see, e.g., Ginsborg [1998]).

[18]Kennedy [2013], p. 20/25.

are part of the qualitative assessment and how they are weighted.

Another way to put this is the following. If you think of the dimensional vs. evaluative distinction as a matter of what measure functions depend on, you may think of dimensional gradable adjectives as projecting an objective scale, with a world-based ordering, while evaluative ones project a subjective scale, with an agent-based ordering.[19] A general description of the two sources of subjectivity can be glossed as follows:[20] there may be subjectivity regarding standards, discussed already by Fara [2000] and Richard [2004] concerning dimensionals like *rich* or *expensive*, but on top of that you can also identify mapping subjectivity, when you consider that measure functions as those associated to PPTs like *tasty* are agent-based. A faultless disagreement may arise with standards subjectivity and with mappings subjectivity. Embeddings under *find* require mapping subjectivity, which amounts to people having each their own measure function.

Although Kennedy does not consider explicitly the seeming contradiction in example (39) in chapter 2, subsection 2.3.3 (repeated below in (4)), and how it contrasts when the PPT is replaced with a gradable adjective like *heavy* (see example (5)), one could speculate what his analysis would be.

(4) (?) Alf: This is tasty but I don't find it tasty.

(5) a. The box is not heavier than the suitcase but I find it heavier.
b. This pastry is sweet but I don't find it sweet.

A possible explanation of the contradiction in (4) would be that when *This is tasty* takes the speaker as the source of the qualitative judgement, it cannot be followed by *but I don't find it tasty.* The acceptability of the examples in (5) would be given by the polysemy of *heavy, sweet.* The first half of the sentence is interpreted dimensionally, so that the adjective denotes a measure function that maps its argument onto a degree that represents a quantity (weight, salt), in the second half the adjective is used in its evaluative meaning, as a "subjective measure function" which maps its argument onto a degree that represents the quality the object according to the judge provided by the matrix subject.

Let us now offer a few critical remarks concerning how subjectivity can find a place in the degree-based approach. Degree-based theories make sense of the positive form by postulating the existence, for every gradable adjective, of a standard or cut-off point. As the positive form *long* denotes the property of having a degree of length that is at least as great as the prevailing, contextually given standard, the positive form *tasty* would be the property of having a degree of tastiness that is at least as great as the speaker's or assessor's standard. This is, naturally, the first place where one should start wondering whether this per-

[19] This is suggested by, e.g., Paenen [2011] and Bylinina [2014].

[20] This comes from Fleisher [2013]. His own claim is slightly different from Kennedy's because it does not impute to PPTs only one sort of subjectivity. Fleisher argues that both sorts of subjectivity apply to PPTs.

spective is adequate to encompass the case of PPTs. Does it make sense to say that we judge whether to call something *tasty* based on a standard,[21] on a line we have drawn, as we may do it when we consider whether to call something *long* or *expensive*? Does it make sense to require that, to say *This cake is tasty*, we have to compare how tasty this cake is with a standard value of what counts as being tasty? We believe it does not.

The semantic function of a cut-off point is to provide a means of separating those objects for which *This is tasty* is true from those objects for which *This is tasty* is false. By its account, we can always settle on whether something is the case. The problem is that in this picture, there is a criterion that conditions what we should say next. Even though we may recognise that our past judgements influence to some extent our future decisions as regards what we call *tasty*, the idea that what we have called *tasty* in the past would give us a criterion turns taste judgements into something more rational than they are. If we would call *tasty* only what fits under a given criterion, the spontaneity of what is given to us in new experiences would be barred. We would speak about what we *think* is tasty and not about what we *find* tasty. To sincerely call something *tasty*, it is not a past judgement what we have to look at, but rather how something strikes us right now. In that sense, taste judgements are not comparative in nature, even though it is possible to make comparative judgements regarding taste.

Degree-based theorists often assume that degrees form structures as complex as those of the real numbers. It is rather obvious that we do not have, and would be very difficult to give, a mapping from tastiness to the real numbers.[22] Which set of numbers represent the degrees of adjectives like happy or beautiful? This indeterminacy threatens the possibility of intersubjective understanding. If agents cannot rely on a determinate scale, if whenever someone utters a taste judgement we are clueless concerning the dimensions at stake or how the judge aggregates measurements, then it seems barely impossible to succeed in communicating when we exchange such utterances. Totality as an underlying assumption also produces other undesirable consequences. We can say of any man whether

[21] Those who have read Hume [1757] may wonder whether this notion of standard, and how it applies to *tasty*, is the same as the standard of taste he discusses. Hume claims that a standard of taste is set by the joint verdict of true judges: "few are qualified to give judgment on any work of art, or establish their own sentiment as the standard of beauty." (Hume [1757], §23) This seems to bring Hume close to an absolutist position, claiming that there is something like true and false judgement in matters of taste. (We will meet such positions below in subsection 3.2.3, when we present absolutist theories concerning the semantics of PPTs .) However, for Hume verdicts of taste concern matters of sentiments, not matters of fact, and are thus devoid of truth-value. In the degree-based account, the standard is precisely the key to deciding the truth or falsity of a judgement, in particular of a judgement of taste.

[22] This problem, we should note, is not new to semanticists who consider extending the degree-based theory to cover the case of PPTs. Sassoon [2007] already observed (following here Kamp and Partee [1995]) that there is much indeterminacy in the mapping of individuals to numbers in a scale, "this is certainly true of predicates like *happy*. Given the set of real numbers between 0 to 1, why would a certain person have a degree 0.25 rather than say 0.242 in *happy*?"

he is taller that another one, if we have the technical means and skill to make a measurement. Can we do that regarding any two edible items? Are any two arbitrary edible things comparable? Surely not, try for instance comparing, e.g., roasted chicken with chocolate cakes.

But perhaps Kennedy's qualitative measurements are not meant to involve such mappings. Scales can be weaker than this, they need not involve demanding total orderings, they can rely on much weaker partial orderings.[23] However, even if in Kennedy's view the assessment underlying PPTs is qualitative, the measure-theoretic interpretation implies that properly using these adjectives presupposes the ability to perform such measurements.[24] Making measurements presupposes logically and developmentally the ability to make comparisons.[25] This is the root of the problem, that degrees are already conceived as mathematical objects. Plausible as this may be for the case of adjectives like *tall* or *heavy*, it is very difficult to see what sort of conventional method of measurement could underlie our assessments of, e.g., tastiness or experienced-heaviness. Such method would have to assign numbers so that relationships of the attributes of things are reflected. But there is no overall agreement on a set of necessary and sufficient properties of tastiness which can be phrased independently of specific experiences. If for some occasion we fix the meaning of various terms, e.g., in a wine glossary, this is always *ad hoc*.

We have a more general observation concerning the use of degrees and measurement as the basis of a semantics for PPTs, one related to the rule-following considerations.[26] Does it make sense to say that we make subjective or qualitative measurements of, e.g., tastiness? Measurement is a normative practice, being thus at odds with an idea of measurement which admits a subject-bound variability and an inherent indeterminacy of the mapping from the object's properties to values on a scale. Now, the subjectivity in the determination of the intensity in which taste (or its constituent dimensions) is qualitatively experienced hinders the stability of the values in the scale, where this stability is essential to there being a mapping in the first place. Furthermore, and more generally, a measurement method which is not stable among subjects (or even, within subjects across time) is no longer a measurement method. If you and I may take a different standard metre every time we make a measurement of length, we would not want to call that measurement at all. We would rather call it: a game of comparing lengths. How could a single individual keep track of his past measurements of taste in order to settle a proportion or a constant necessary for a scale? The judge

[23] See a comprehensive study of the options available in Sassoon [2010], see Van Rooij [2011b] for an overview.

[24] For "we can only make sense of degrees once we adopt a system of full-blooded quantitative measurement". Van Rooij [2011b], p. 16.

[25] Even Bierwisch [1989], a degree-based proponent, explicitly relies on comparison as being at the basis of degrees.

[26] Wittgenstein [1958a], esp. §§139, 141, 142.

would have to retain the outcomes of her estimations in order to induce a scale through which gradation in taste could make sense. However, if memories of the intensity of past appreciations are not kept by relating them to a settled scale, they can change as they are recalled, e.g., if when recalling them we do so by relating them to a new, different scale. The idea that PPTs depends on a subjective measurement procedure is a form of Cartesian internalisation of our method of projection[27] which leads to a conceptual clash with the very idea and possibility of measurement. If the assignment of numbers to reflect relationships of the object's attributes can change when the object's attributes remain the same, and it can simply change by virtue of who takes the measurement, then it seems that speaking of measurement does not make much sense in the first place. All this highlights the conceptual untenability of a purely subjective determination or epistemic access to the scale in which taste is measured.

Our last point here relates to the discussion initiated in chapter 2, section 2.3, concerning the alleged polysemy[28] of RGAs having a dimensional and an evaluative sense. The idea that gradable adjectives like *heavy, old* are polysemous between a dimensional and an evaluative meaning disconnects two aspects of gradable adjectives whose relation one should strive to understand. An account like Kennedy's that merely postulates two degree functions fails to capture the connection that surely exists. Even though Kennedy might be aware of the connection, his formalism does not represent it. A rule like *Checked-in luggage cannot be heavier than 23 kg* makes sense by virtue of there being a relation between the quantitative measurement and the qualitative one. Furthermore, it seems really hard to find an RGA which could not be given evaluative meaning. We conclude from this that polysemy should not be deployed as an argument to explain why certain RGAs which are not PPTs pass diagnostics for subjectivity. The delineation-based approach can fair better in this sense, for it does not take measurement to be in the backbone of gradability.

3.1.3 Delineation-based approaches

It has been noted that, from a formal point of view, degree-based semantics and delineation-based ones are basically equivalent (provided they have comparable expressive power) in how they can handle English adjectives.[29] There are, however, linguistic and conceptual motivations for delineations as an alternative approach. An initial one is that degree-based views assume that the comparative form is more basic than the positive form, given that the positive form is a covert

[27] Stein [1997], ch. 5, pp. 184-190.

[28] See our disclaimers for why we simply call this phenomenon 'polysemy'. See fn. 68 in ch. 2.

[29] Cf., e.g., Lassiter [2011]. But to be fair, one should note that degree-based defendants raise empirical challenges against delineation-based approaches. See for instance Kennedy [1997]'s arguments concerning crosspolar anomaly. However, a delineation-based solution to interadjective comparison is given by Van Rooij [2011c]. We do not delve into these issues.

comparative referring to a standard value. To say that, e.g., *Alf is tall* involves comparing Alf's height with a standard degree. This is empirically challenged by at least two observations. First,[30] for English and for many other languages, the comparative form is obtained via marking of the positive form, which suggests that taking the comparative to be basic as done in degree-based theories goes amiss. Second, there are languages which are argued to lack degree morphology as the one postulated by degree-based views.[31]

Delineation-based theorists take these lessons as the starting point for an arguably more adequate approach.[32] According to this view, gradability has to do essentially with context-sensitivity and not with measure functions being the denotation of adjectives like *long, heavy, tasty.* For this perspective, gradable adjectives behave like just any other predicate insofar as their application determines whether an object is in the adjective's (anti)extension. However, their extension is crucially context-dependent. Gradable adjectives are evaluated with respect to comparison classes. The extension of a gradable adjective changes depending on the comparison class one picks. The label for this approach is derived from the fact that the context delineates the extension, anti-extension, and extension gap of gradable adjectives. What we do in conversation is to, little by little, make the meaning of these terms more precise by eliminating elements from the gap, make a sharper delineation of the domain. Note that this approach is eliminative, in the sense that every refinement of a context it smaller than the initial context where the gap was bigger.[33]

This approach started out as a means to tackle phenomena related with vagueness.[34] The supervaluational view proposed that gradable adjectives are defined as interpretation functions relative to a context. The truth of a judgement like *Alf is tall* depends on the completions consistent with the information in a given context. While each completion is a classical context wherein every statement is either true or false, it is undetermined or uncertain what the actual cut-off point for English is. In this way, GAs in the positive form simply denote an extension, like any other adjective, but where the extension depends on a world-dependent cut-off point.[35] A comparative statement *Alf is taller than Bea* is true when the

[30] As noted in Kamp [1975] and Klein [1980].

[31] See Bochnak [2013]'s observations about gradation structures in Washo.

[32] This view is first suggested in Kamp [1975] and developed in Klein [1980] It has been further developed by Van Benthem [1982], Van Rooij [2011b], Doetjes et al. [2011], and Burnett [2012].

[33] The approach we shall develop in chapter 6 will pair with delineation based views in some respects, but it will not be eliminative in this sense.

[34] Cf., Kamp [1975], McConnell-Ginet [1973], Fine [1975].

[35] Actually, gradable adjectives in the positive form are associated with sets of such extensions (one for each completion/comparison class). The idea is that we are always in partial contexts so we always carry with us a set of completions and no single complete extension. But one can see that such uncertainty regarding which completions out of this set is, for all practical purposes, bracketed out until the completion that we defeasibly picked as the relevant one for a context is shown to be inadequate.

set of worlds in which Alf is tall is a proper superset of the set of worlds in which Bea is tall. This proposal crucially relies on a meaning postulate which assumes totality: every two individuals are comparable with respect to a given adjective. In a way, this assumption makes the comparative basic with respect to the positive, for one can never say that, e.g., a man is tall if there is no other man that is either taller or shorter.

It is possible to avoid this assumption.[36] On the comparison class approach, adjectives like *tall* denote functions which select entity sets from context-dependent comparison classes. These are ontologically primitive, whereas entity orderings and degrees are derivative. One can think that while the interpretation of non-gradable adjectives like *dead vs. alive* corresponds to total functions, which say of every object whether it falls in the adjective's extension, the interpretation of gradable adjectives like *tall* is always partial. It is a function that assigns individuals to positive extensions, negative extensions, and extension gaps to accommodate the fact that, e.g., some people are neither tall nor short, relative to a comparison class which has to be of cardinality greater than or equal to 2. In this account we say, e.g., *Alf is tall* if in the contextually given comparison class, Alf is in the extension of *tall*. Meanwhile, *Bea is taller than Alf* is interpreted by finding a comparison class for which Bea is in the extension of *tall* and Alf is not. As we go on talking, the collection of items in the denotation gap ideally shrinks.[37] Comparative statements like *Alf is taller than Bea* can be interpreted as consisting of a local domain with just the two compared entities of which the speaker can say whether one belongs to the extension of *tall* and the other, to the antiextension. In this respect, this proposal also endorses totality.

But this view fails to accommodate absolute gradable adjectives and their context *in*dependence, because it is not possible for an object to be in the extension of, e.g., *dry* given one comparison class but to be in its negative extension with respect to another comparison class.[38] A way out is found by being more precise about the nature of the comparison classes intervening in the interpretation of relative vs. absolute gradable adjectives. One can for instance require that the positive use of absolute ones be interpreted with respect to the maximal comparison class (the whole domain), while for RGAs a proper subset of the whole domain may be taken into consideration.[39] Or one can locate the differ-

[36]Klein [1980] offers a way out.

[37]The denotation gap is treated as a new local domain which allows the determination of the status of some gap members under, e.g., *tall*. Intuitively, those which are the tallest in the new domain get to the adjective's extension, and those which are the least tall get to the antiextension. This process can be repeated by treating the rest of the entities, the reduced gap, as a new local domain, and so on until the gap is completely eliminated.

[38]As argued by Kennedy [2007], McNally [2011].

[39]This is how Van Benthem [1982] does it. Van Rooij [2011b] tackles these challenges by drawing on Arrow's (1959) derivation of a preference ordering relation which takes the notion of choice as primitive, and which gives rise to a weak order (an irreflexive, transitive and almost connected binary relation on a set of individuals). Adjectives are, in a sense, identified with

ence between relative and absolute gradable adjectives by distinguishing types of context-sensitivity in the adjectival domain.[40]

Delineation-based semantics for PPTs have not been proposed so far,[41] although PPTs like *beautiful* have been accounted for in delineation-based solutions to multidimensionals.[42] It is clear since long ago[43] that adjectives like *useful, clever* are, like *big* non-linear, for they give rise to incomparabilities. Alf might be very good at spelling and Bea may be very good at math, and for each of these very different reasons we may want to call them *clever*, and each dimension gives rise to a separate ordering, so we may want to say that *Alf is cleverer than Bea* when we consider spelling as taking priority, while one would say *Bea is cleverer than Alf* when we consider skills in math as taking priority. Suppose we believe that *beautiful* can be included to this list of multidimensionals by claiming that dimensions of *beautiful* are, e.g., *harmony, where elegance, uniqueness.* If one insists[44] that the comparative can only be used if *one* particular dimension is fixed, it is possible to meet the necessary constraints to define the comparative.[45] So if *beautiful* can be seen as working like *clever* in the sense that we can decide on one specific aspect that we compare each time we compare, multidimensionality leads to a delineation-based view of PPTs.[46]

A nice feature of the delineation-based view is that it does not single out gradable adjectives as being essentially different from other adjectives. The peculiar behaviour of gradable adjectives is mostly due to the role of context sensitivity, to the variation of comparison classes and to the varying (im)precision with which one can communicate. But the idea that subjectivity of PPTs like *beautiful* reduces to multidimensionality is disputable. This suggestion implies that one can meaningfully isolate necessary and sufficient dimensions which constitute beauty. Even if this reduction is only done in the context of a very specific example, it is dubious that any such finite enumeration would qualify as a definition of the adjective *beautiful.* Last but not least, this approach assumes transitivity[47] which places constraints on *tasty* that might make the wrong predictions. If one considers successive tasting of a, b, c, a, one might get a failure of transitivity ($a > b$,

choice functions.

[40]This is Burnett [2012]'s analysis. Her formal account is in line with Van Rooij [2011b].

[41]Sassoon [2009] actually uses some of the formal tools from delineation semantics but in combination with a degree-based account of gradable adjectives resulting in a contextualist theory of PPTs. To avoid confusion, then, we present her view in subsection 3.2.1 below where we discuss contextualism.

[42]Recently, McNally and Stojanovic [2014] have hypothesised that aesthetic adjectives are multidimensional, but they do not offer a formal analysis of these adjectives. Note as well that their claim is that aesthetic adjectives are not to be identified with PPTs.

[43]As Klein [1980] points out.

[44]As Van Rooij [2011c] does.

[45]To be modeled via choice functions the ordering needs to be almost connected.

[46]A similar solution but in a degree framework is given by Umbach [2014].

[47]In the probabilistic theories mentioned in fn. 3, $a > b$ means that under most forced choices, a is preferred to b. This notion need not be transitive.

$b > c$ but $a < c$) in the subject's verdict.[48] The set up of this perspective simply leaves out of consideration the fact that taste assessments depend on experiences which are not merely intellectual but also physical, and that ultimately the verdict is dictated by our embodied reactions rather than by our previous evaluations.

We come now to a few more general observations. First, this framework predicts that as long as the comparison class stays fixed, our judgement of, e.g., tastiness of an object should remain fixed as well. This, however, does not fit the facts. We often change our minds simply by tasting again, by iterating our savouring experiences. How our judgement may change is not something that can be predicted in general. Sometimes, tastes are acquired when we expose ourselves repeatedly to a taste; but sometimes, tasting something over and over again, we may grow tired of the sensation and dislike what we are having. Adding new objects to the comparison class (or new experiences, if one believes that this is what we compare) is neither necessary nor sufficient for us to change our minds.

Second, the idea that we have to compare objects or experiences is problematic in the case of PPTs. When we say that a fruit is tasty or that a theme is melodic, we may have no other objects in mind which are (not) tasty or melodic. Even though we may want to say that anything tasty is tastier than something that is *not* tasty, our positive judgement does not require that we can compare the current object to something else. One may produce a qualified judgement where comparison classes obviously play a role, as in *This wine is tasty for a Grand Cru*. But this does not entail that comparisons play an essential role in saying *This wine is tasty* or *This Grand Cru is tasty*. We may have no idea of what comparison class an object belongs to, and still we may intelligibly judge it to be tasty.[49] This is precisely what is at work in blind tasting.

Third, while in the case of length, we can (ideally) put objects next to each other on a plane and compare them with respect to their height, if we compare two or more objects with respect to their tastiness, it is not the objects that we compare but rather our appraisal thereof. What, if anything, could be a plane on which we can put our current and past experiences on a par and compare them? It is not possible to locate this plane in the past experience, for a new experience is bound to modify that plane. If the plane is given by our current state, our appraisal of something we have experienced in the past may have changed, so actually we would not be comparing a current experience with a past one, but rather a current experience with our remembrance of a past experience. We have no criterion by which we can actually compare our current and past experiences.

[48] While one might want to explain this loop away by adding a temporal index on each of the tasting instances, it is nonetheless implausible to hold that after successive tasting of a, b, c with assessments $a > b$, $b > c$, one is thereby guaranteed to infer $a > c$ as one is enabled in case the adjective is, e.g., *long*.

[49] In a way, this observation comes close to what Bierwisch [1989] claimed about evaluative gradable adjectives like *lazy vs. industrious* whose application is independent of a comparison to a reference set.

This is not to say, however, that we cannot meaningfully speak about our past evaluations. The point is that to make a taste judgement now, we do not invoke past experiences that serve as a comparison class.

A more general argument is the following. The main contention of the delineation based view, namely that all gradable adjectives are essentially interpreted in relation to a comparison class, rests on the possibility to pick a comparison class independently of the use of gradable adjectives. Otherwise, the proposal would leap into a regress. But to determine the class of objects with respect to which we judge something to be G, we need a criterion: not all objects qualify, so we need to have some idea of the property or aspect of the object that the adjective G identifies. The comparability of objects presupposes that we already have a way to sort them out.

In this section, we have presented two mainstream approaches to gradability and discussed how they can account for subjectivity. We now turn our attention to different positions concerning, specifically, the semantics of PPTs. A word of clarification before we move on. We shall see, one of the core positions in the debate about the semantic of PPTs is called contextualism. One can easily think that this is simply a specialised variant of delineation-based semantics concerned with PPTs, given that this approach to the semantics of gradability takes context to be at the center of the scene. However, contextualism in the debate about PPTs is compatible with degree-based theories of gradability, as we shall see below.

3.2 Main approaches to PPTs

Models for PPTs primarily strive to make sense of the first two subjectivity diagnostics presented in chapter 2, section 2.3: faultless disagreement and embeddings under *find*. Contextualists, relativists, and absolutists simply adopt a truth-conditional view on meaning. Expressivism comes in different flavours, but it basically claims that the subjectivity of PPTs is due to (part of) their meaning's *not* being truth-conditional. Common to these views[50] is that subjectivity is conceptualised as judge-dependence of some sort. For contextualism, presented in subsection 3.2.1, PPTs are subjective either because they add a judge-parameter fixed by the context of utterance, or because the linguistic norm setting the interpretation of the adjective is fixed by a judge: truth is not judge dependent but content-depends on whose opinion or experience is taken into account. Relativism, presented in subsection 3.2.2, claims that PPTs are subjective because they add a judge-parameter fixed by the context of assessment:

[50]It may seem surprising now to read that absolutists admit a form of judge-dependence. Here we are referring to very specific forms of absolutism (one could call it "nuanced absolutism") developed to account for the semantics of PPTs like Moltmann [2010] and Pearson [2013a] presented below. Our description of these theories will make clear the sophisticated sense in which they admit judge-dependence of PPTs.

truth depends on who assesses it. Absolutism as developed in this debate claims that truth-conditions of taste judgements are judge-*in*dependent; nuanced forms of absolutism, however, let subjectivity in by arguing that we have a distinct first-personal cognitive access to the propositional contents expressed by these judgements, a form of epistemic judge-dependence. We present this view in subsection 3.2.3. Expressivism of a standard sort would basically deny that taste judgements have truth-conditional content. Expressivism as has been developed for PPT actually claims that there is truth-conditional content involved in what taste judgements mean, but this is not the level at which subjectivity enters. Subjectivity enters either at the level of pragmatics, as an expressive-affective layer, or as an additional use-conditional semantic layer having felicity conditions akin to that of directives or commissives. Subjectivity has to do with a judge's expression of a non-cognitive attitude. We examine these views in subsection 3.2.4. We will present these views and discuss them separately in this section, and keep for section 3.3 a more general reflection on the challenges for these views.

3.2.1 Contextualism

Contextualism is, in a sense, a conservative option by which semanticists have tried to accommodate the subjectivity of PPTs without drastically deviating from the post-Kaplanian semantic architecture. Contextualists generally hold that the content of propositions containing PPTs is judge-dependent: before one can assess the truth of a statement like *This cake is tasty*, one has to determine the content of the statement by means of a mechanism that rightly picks the judge, or the set of judges, whose (qualitative standard of) taste is at stake. Once this is fixed, truth-conditions are judge *in*dependent, so whoever assesses a proposition should get the same answer as a result.

Contextualism about PPTs comes in different flavours, depending on, among other things, the following three axes of discussion.[51] The first axis concerns the formal implementation of the semantics they elaborate. The second one relates to what exactly context is seen to contribute: an experiencer on whom a cut-off point depends, or a judge taking a stance concerning the prevailing linguistic convention. The third one regards the analyses they offer of faultless disagreements and embeddings under *find*. The core agreement among these positions we take it to be that a contextualist does not think there is a sharp

[51] Glanzberg [2007] also speaks — like Kennedy [2013] — of qualitative scales. He does not, however, discuss what at a formal level makes a scale a qualitative, as opposed to a quantitative one. Glanzberg, adopts a basic degree-based approach to the semantics of PPTs, claims that actually dialogue participants disagree about what amount of, e.g., tastiness or fun, is assigned to the object under evaluation. The scale for a PPT like *tasty* is the gustatory quality as experienced by a group of people or agents. When the speaker and hearer share scales and standards, they may discuss whether, e.g., "roller coasters have sufficient fun to count as fun in the context". Here you see that contextualism with respect to PPTs can be married with a degree-based approach to gradability.

difference between between contextual variations in truth value observed with taste judgements and variations in truth value observed with other well-known classes of expressions.

Some contextualist views on PPTs clearly lean on degree-based approaches to gradability,[52] some rely on, or closely relate to, the philosophy underlying delineation-based analyses.[53] The subjectivity of PPTs is conceptualised as judge-dependence of the proposition expressed the sentence in which it features, a lexical peculiarity that singles them out among other (gradable) adjectives.

A first variant of contextualism for PPTs assumes that the context of utterance provides a judge argument on whom the content of a proposition like *This cake is tasty* or *This show is boring* depends, an argument that is otherwise fixed by an overt phrase, as in *tasty to Alf* or *boring to Bea*.[54] Let us call this position *representational contextualism*. The core idea that is agreed upon here is that in case two speakers disagree in their taste judgements, they do not express inconsistent propositions. For this view, the whole notion of faultless disagreement is absurd, a philosophical mirage. With a change of judge provided by switch of the context of utterance comes a shift in the property claimed to hold of the object under evaluation in a faultless disagreement. If the issue is whether the cake is tasty to Alf or not tasty to Bea, then there is not one issue but two, so actually there is a misunderstanding and not an actual disagreement. Discourse participants actually talk past each other, they do not discuss about one and the

[52]Like Glanzberg [2007], Barker [2013] also takes up a degree-based account of gradability, but puts it within an update framework in which uncertainty about where a cut-off point is to be drawn is reduced, which brings him somewhat close to the delineation-based view, as Lassiter [2011] points out.

[53]Like Sassoon [2009], but Barker's own solution relates to this idea as well through the notion of precisification or delineation of the conversational context. Sassoon [2009] gives a model for PPTs which is actually a mixed account which involves a degree-based interpretation for the basic meaning of PPTs and a delineation-based approach to what she calls the "inherent indeterminacy of degree functions for taste". Building on Kamp's vagueness models for gradable adjectives, Sassoon takes PPTs to be true in a partial context if and only if it is true in the set of completions consistent with it. For Sassoon, completions determine complete interpretations for PPTs like *tasty, fun*. Each completion corresponds to the taste of one possible individual, so the taste of each individual is assumed to be fully specified (completions are classical contexts where every statement is either true or false). In each completion, a PPT like *tasty* denotes a degree function: *The cake is tasty* is evaluated per completion, and it is true if and only if the value assigned to the cake in that completion exceeds the cut-off point of *tasty* in that completion. As a result, the interpretation of PPTs differs in different completions, "while none corresponds to the actual "objective" (inter-personal) interpretation (as such probably does not exist)." (Sassoon [2009], p. 139) PPTs are special in that we are uncertain of which degree function they denote, of whose taste they represent, where the existence of different tastes imply different scales.

[54]Cf., Stojanovic [2007], Sundell [2011]. Stephenson [2007] partly endorses this sort of contextualism, to account for cases of so-called exocentric judgements, where the agent whose taste seems to be the relevant one is not the speaker, but it integrates it with a relativist account of the normal case where the judge corresponds to the speaker.

same content that one of them asserts and the other one denies.

A second variant of contextualism argues instead that it is the prevalent rule for interpreting the PPT in a taste judgement is judge-dependent. Let us call this view *metalinguistic contextualism*.[55] The idea is that RGAs have what they call descriptive and metalinguistic uses, where metalinguistic uses are basically cases in which we use RGAs to pass judgements which are meant to change a prevailing standard we agree upon in a given context, i.e., the cut-off point determining the extension of the adjective . The core idea is that in taste disputes, one is negotiating a linguistic standard, so a faultless disagreement is not a misunderstanding but rather a discussion about who determines the prevailing linguistic conventions, a discussion which is bound to be irresolvable given that no one has a privileged position to sanction by herself linguistic conventions that bind the community to which she belongs. Then some theories ensure that there is a constant component in the meaning of such adjectives, a stable core that can be identified with the commending function of adjectives like *good* and, arguably also for *beautiful* or *tasty*.[56] In this sense, contextualism comprises for us theories which do not see necessarily judge-dependence as the requirement of an implicit argument, but which nonetheless take people's perspectives to be constitutive of the context which settles the a range of viable cut-off points.

Given this divergence among contextualists, one gets different analyses of attitude verbs like *find*. For representational contextualists, *find* binds the value of the judge argument of the embedded predicate to the matrix subject.[57] It is thus a syntactic requirement for *find* complements to contain a slot for a judge argument. Thus, all *find* does in a restricted judgement like *Alf finds this cake tasty* is to make sure that *tasty* gets *Alf* as the argument that has to fill in the slot required for the interpretation of the adjective to go through. Attitude verbs like *find* are then thought to simply make explicit the implicit judge parameter on which the content of an unrestricted judgement depends.[58] For metalinguistic contextualists, the complement of attitude verbs akin to *find*[59] introducing restricted judgements is used to pass a new convention concerning the viable range of cut-off points. Pragmatically, this leads to discourse commitments which are restricted to the individuals appearing as matrix subject of *find* embeddings, which explains why

[55]Here you can see Sassoon [2009], Sundell [2011], Barker [2013], Umbach [2014]. Actually Umbach's interpretational use puts together the two sorts of contextualism, as it concern the use of an expression *and* the individual that the adjective qualifies.

[56]This is Umbach [2014]'s claim which she traces back to Kant, relying on Hare [1952]. We see this coming back in Buekens' expessivist approach and in our own analysis in chapter 4, although our interpretation of this commending function is somewhat different from that of Buekens and Umbach.

[57]As first described and defended by Sæbø [2009].

[58]Sæbø [2009] puts the English verb *find* together with the German *finden* and the Swedish *synes*, and relates it as well with the French *trouver*. He labels these as "subjective attitude verbs". We do not use this label, as explained in fn. 87, ch. 2.

[59]Umbach [2014], who partly draws from Reis [2013], actually focuses on the German *finden*.

denying a first-person restricted judgement like *I find this tasty* with an outright *No, you don't* is generally off.

Many objections against contextualism are offered by relativists. We will comment on some of these at the beginning of the coming section. The main point we want to raise here, one that also concerns the relativist view we will present in the coming section, is that it has the problematic consequence of 'privatising' the meaning of PPTs — this goes for contextualist views that do not ensure a stable core in the meaning of these adjectives.[60]

Even though positions are split concerning faultless disagreement, with some authors claiming that it is a philosophical mirage while others claim that it is a typical and pervasive phenomenon, there is a common issue underlying these diagnoses. It turns out, according to such analyses, that in situations of so-called faultless disagreement we are actually trapped in a misunderstanding, a (partial) failure of communication. Either because dialogue participants talk past each other by taking themselves to be discussing about one and the same proposition when they actually discuss about two different ones, or because they actually abide by different linguistic conventions,what looks like a discussion is actually a case of miscommunication. We believe it is dangerous to conflate the notions of disagreement and miscommunication because this renders a host of linguistic exchanges unsuccessful, which seems a most undesirable consequence.

Concerning the contextualist's view on embeddings under *find*, empirical and conceptual arguments against the judge argument as syntactic requirement by *find* can be found in the literature, all of which give good reasons to think that this approach is not really adequate.[61] We just want to underscore one basic problem, and that is that unless one also claims that RGAs such as *heavy, expensive* have implicit judge arguments, one cannot explain why *find* can take these adjectives in its complement. The second observation is a subtler one. The point is that if by saying *I find this tasty* we make a statement concerning our cut-off point for tastiness or our own idiosyncratic linguistic convention for the use of this adjective, and when we make such restricted judgements we block denial given that a reaction with *No, you don't* is in normal cases ruled out, then we have a case in which a person can keep a private record of her sensations or linguistic usage but cannot be held accountable for her records or usage. As it seems, the idea that *I find this tasty* describes the extent of my own gastronomic pleasure to which I and only I have access leaps into a private language conundrum.

[60] So this objection does not apply to Umbach [2014].

[61] Cf., Bouchard [2012], Collins [2013], Kennedy [2013], Umbach [2014].

3.2.2 Relativism

We should again start with a disclaimer, as the label 'relativism' suggests a monolithic view while there exist numerous different proposals.[62] The central feature of relativism concerning PPTs is the claim that the subjectivity of these adjectives forces one to posit judge-dependence not at the level of content but at the level of truth.[63] A statement containing a PPT is true relative not only to a world and time of utterance, as any post Kaplanian semanticist would admit, but also to a judge. This is the agent whose taste or opinion dictates whether a taste judgement is true or false. This is identified with the context of assessment[64], or a judge therein.[65] The relativist move is less conservative than the contextualist one, but this is claimed to be for a good reason, i.e., to take at face value the idea that in matters of taste each one can hold their own view. This makes it possible to say that an unrestricted judgement like *This cake is tasty* may be true relative to one of the dialogue participants and false relative to the other one.

As anticipated above, views differ concerning the implementation of relativism. The general idea is that a new slot is added to the index of evaluation[66] which is usually,[67] though not always, filled by the speaker in a given context of

[62]Consider Egan [2010], Kölbel [2004], Lasersohn [2005] et ss., Stephenson [2006, 2007], MacFarlane [2005] et ss. See López de Sa [2011] and Lasersohn [2013] for critical discussion, respectively, of the varieties of relativism and of what is arguably essential to this position.

[63]We have seen this position in subsection 3.1.2 when we presented Kennedy [2013]'s analysis of evaluative adjectives.

[64]MacFarlane [2005, 2007, 2014].

[65]Among other views, see Lasersohn [2005, 2009, 2013]. Kölbel's view on relativism is slightly different, somewhat broader, as he uses the term for views that postulate additional parameters to a possible worlds parameter. Relativist is any position rejecting absolute utterance truth, but one does not need to go as far as claiming that the truth value of a taste sentence depends on context of assessment. One can instead claim that truth depends on standards of taste, which according to Kölbel leads to non-indexical contextualism. Taste judgements express contents that may vary in truth-value not only with a time and possible world, but also with a standard of taste. This view is less liberal than Lasersohn's and MacFarlane's because it does not go so far beyond the standard Kaplanian view. One can actually argue that Kölbel is, after all, a contextualist. This labeling debate is, however, not of interest for us.

[66] Lasersohn [2005] defines PPTs like *tasty* as one-place predicates *tasty*(x) where the argument x is the object under evaluation, and proposes to add a judge to the index of evaluation of any sentence containing a PPT, which becomes a triple $< w, t, j >$ of world, time, and judge: the truth of propositions containing PPTs is judge-relative. In other words, as noted by Stephenson [2007], Lasersohn's worlds are 'centered' in the sense of Lewis [1979].

[67]Lasersohn assumes that agents typically take an autocentric perspective, they take themselves to be the judge j which determines the truth of an unrestricted judgement like *This cake is tasty* which they assess. Interestingly, in giving a semantics for expressives like *damn, bastard* (this sense of "expressive" comes from Cruse [1986] and Kaplan [1999], Potts [2007] considers Lasersohn [2005]'s semantics for PPTs. He takes up Lasersohn's notion of a judge, but in expressives like *damn, bastard*, the judge parameter is more strongly anchored on the speaker (rather than in other judges) than in the case of PPTs. Note that judge-shifting works differently for PPTs and for expressives. The example below shows how expressives such as *bastard* are non-displaceable, unlike PPTs:

utterance. One may utter or assess the same unrestricted judgement but take an exocentric perspective, where we take a judge other than the speaker to be the one which determines the truth of the sentence. A situation like a mother who attempts to convince her child to eat healthy food,[68] or the alleged case of a judgement that a certain type of cat food is tasty *because the cat has eaten all of it*[69] would be paradigmatic cases, where the truth of the uttered proposition depends not on the speaker's taste or ability, but on someone else's. An explicit modifier introduced by the preposition *to* as in *The cake is tasty to Alf* is an intensional operator that shifts the judge parameter to the agent introduced by the prepositional phrase.[70]

According to the relativist, faultless disagreement is what it seems to be: a situation where two people make contradictory statements and none of them is at fault. Faultless disagreement occurs when Bea denies the proposition asserted by Alf (there is disagreement) but where the truth of the proposition that Alf asserts and Bea denies is relative to each of them (it is faultless). Although both participants say something that is true at the index determining the truth of the claims each makes, their claims are contradictory.[71] Embeddings under *find* work as it is expected: this verb fixes the matrix subject to be the judge with respect to which truth is assessed.[72] This explains why judgements involving

(i) a. A: Sue believes that bastard Kresge should be fired. #I think he's a good guy.
b. A: Sue believes the tasty cake is on the table. I don't find it tasty.

Non-displaceability is the property exemplified in how the perspective expressed in the first half of example (i-a) is tied to Alf's perspective and not to Sue's, Potts suggests one should let the judge argument enter into the denotation of expressives. Given this contrast in embeddings, we will consider expressives as a separate phenomenon, related but slightly different from the case of PPTs.

[68]This example comes from Sassoon [2009], but her analysis aligns with contextualsim.

[69]Inspired by Von Fintel's example in Stephenson [2006].

[70]Stephenson [2007] proposes a formal improvement of Lasersohn [2005], and has a mixed view which is partly relativist and partly contextualist. According to her, PPTs like *tasty* are two-place predicates *tasty*(i, x) with both an experiencer i and an object x as arguments. As Lasersohn, she enriches the Kaplanian context with a third index j representing a judge. When introduced in a restricted judgement like *I find the cake tasty*, the experiencer argument in *tasty* is filled in by the subject heading the attitude verb. When standing alone in an unrestricted judgement like *This cake is tasty*, the experiencer-argument is filled in by a silent nominal item PRO_J that fixes the judge to be the one provided by Lasersohn's index i in the context, it is an implicit argument. In special cases (Lasersohn's exocentric assessments), the experiencer-argument is filled in by a contextually salient individual, which Stephenson represents as a null pronoun *pro*. So while for Lasersohn, prepositions like *for, to* are judge-shifting operators when they are used as in *The cake is tasty for Alf*, Stephenson treats *for Alf, to Bea* as first arguments in *tasty*(i, x).

[71]Here is a small model to illustrate the point. It involves worlds $W = \{w, v\}$ and agents $\{a, b\}$. Then what Alf says is, for instance, $\{< w, a >, < v, a >, < v, b >\}$. Now the proposition expressed by Bea is $\{< w, b >\}$. Both are true, if w is the actual world, but the propositions they express are contradictory.

[72]Articulated by Sæbø [2009], although he ultimately defens the contextualist option pre-

adjectives which are not subjective cannot be embedded under *find*, for when we try, the verb cannot do what it is supposed to do, namely, specify whose opinion determines the truth of the embedded proposition.[73]

It is worth noting that for the relativist there is another feature of subjectivity that one has to account for, one that relativism can handle and contextualism cannot. This is what they call 'retraction'[74], that is, the situation when we change our minds and stop liking something we used to enjoy in the past. If I uttered when I was a child *Fish sticks are tasty!* and now I find them unpalatable, then I should retract my past judgement as being wrong because it is false with respect to my current context of assessment. Contextualism[75] cannot explain retractions because in this view there is no necessary incompatibility between the content I expressed years ago and the one expressed now.[76] So relativism, it is claimed, outweighs contextualism because it succeeds in dealing with so-called faultless disagreement and with retractions.

There are many objections one can raise against relativism. First,[77] relativism seems to clash with plausible assumptions about speaker competence. If we assume that Alf and Bea know the meaning of PPTs like *tasty*, then Bea should realise that Alf's claim *This cake is tasty* is only true relative to himself, and the same is expected of Alf with respect to Bea's response *No, this cake is not tasty.* If both Alf and Bea know that about the relativity of evaluation of sentences, how can they take themselves to be disagreeing?[78]

In the previous subsection we indicated that there is a common problem to contextualism and relativism, and that is that both of this positions lead to different but dangerous forms of privatisation. In the case of contextualism, this related to content or linguistic conventions. Relativism proposes, as it were, a privatisation of the world about which agents communicate: facts are assessor-relative. Taste judgements are subjective not because they do not state a matter of fact, but rather because they state something concerning a fact that may be different per judge.[79]

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sented above.

[73] In Kennedy [2013], the requirement is that the adjective sets a judge-dependent qualitative way of measuring an object relative to a dimension.

[74] Cf., MacFarlane [2014], discussed by Marques [2014].

[75] As MacFarlane [2014] claims.

[76] But would it really make any sense to say *I was (at the point of my utterance) wrong*? We actually think this does not make much sense, but here we are not yet raising a critical point.

[77] As first noted by Stojanovic [2007].

[78] This is, as it were, one of the horns in a dilemma presented by Rosenkranz [2008]. The other horn is to present the propositions as true *simpliciter* or relative to every perspective. Although in such case Alf and Bea disagree, this is not faultless: if they take themselves to be uttering something true relative to everyone's perspective, then they are simply making a mistake.

[79] Fleisher [2013] openly defends this view. "Judge-dependent mappings associated with taste predicates are facts of the world ... I take no philosophical stance on what sort of facts they are (sensory percepts, opinions, something else entirely?); for linguistic purposes, all that matters

Concerning embeddings under *find*, a first observation to make[80] is that without a criterion dictating which adjectives are judge-dependent as the relativist wants it, we are forced to say that anything that can be embedded under *find* is either judge-dependent or is polysemous and has a judge-dependent lexical entry. As we saw in the previous section,[81] this leads to a multiplication of lexical entries without a clear motivation for sustaining the alleged polysemy.

Finally, concerning retraction and its alleged role as being a decisive argument in favour of relativism, we would like to contest it not by claiming that contextualism can actually accommodate it but rather by questioning the cogency of this notion as presented by relativists. A first challenge to this notion is to argue[82] that a speaker has no obligation to deem her past judgement incorrect when the challenge comes from a different perspective (either someone else's or her own, if her judgement has changed over time). Another challenge is ask to wonder whether retractions — in the sense of a self-correction and not in the restricted sense which is per definition associated with truth — actually occur in our common use of taste judgements. Retractions in examples of actual use often occur as elaborations on a prior judgement rather than as denials of past ones.[83] A more general way to scrutinise the cogency of the idea of retraction is to ask if and in what sense it is sensible to say that one (or someone else, for that matter) is wrong in matters of taste. The very notion of having and giving grounds for one's assertions is, precisely, what is problematic in the case of taste, or at least quite different from having and giving grounds with respect to a person's height or to the number of lines which form a geometric shape. The elusiveness of justification is part of the subjectivity of a judgement like *This cake is tasty*. Criteria or methods seem to be lacking here, which makes the whole idea of having grounds to assert a taste judgement a questionable claim. This is a most important issue, one we will delve into in much more detail in chapter 4.

3.2.3 Absolutism

Absolutism, in a nutshell, argues that the truth and content of taste judgements are judge-*in*dependent. We distinguish here two forms of absolutism. A less nuanced one dismisses the diagnostics of subjectivity as being tests for anything really special about these adjectives, claiming that in the end we should all agree about what we say is *tasty* or *beautiful*. This makes it easy to explain why there is disagreement in a faultless disagreement, viz., such disagreements are just like any other disagreement. But this is done at the price of completely dismissing

is that our semantics treat them as facts of the world just as it does objective facts like John's height." p. 286.

[80] Inspired by the objections made by Hirvonen [2014].

[81] The discussion concerning Kennedy [2013] subsection 3.1.2 above.

[82] As Marques [2014] does.

[83] See examples in Pomerantz [1984].

the intuition that in taste disputes no one has the upper hand. A nuanced form of absolutism stands against the relativisation of truth, but like the relativist it accepts that there is indeed a something faultless in taste disputes. This is due to there being a first-person component in how contents of taste judgements are grasped, which explains why we might fail to reach agreements.[84]

The less nuanced variant can be identified with a long standing tradition, going back at least to Plato and Thomas Aquinas, who held that beauty is an objective property of certain things or persons.[85] Recent support to such an approach taking good tasters to be "those who get matters right"[86] has focused on wine tasting and on taste judgements therein.[87] Can there be something like faultless disagreement?[88] For assessments of quality of wines like *balanced, harmonious, bland*, it is claimed, there is little disagreement concerning bad quality. Now, concerning personal preference and adjectives like *tasty, disgusting*, it is recognised that people's preferences may be specific and, in a way, independent of the objective properties of the product. Faultless disagreement would occur if the comparison class were fixed and still Bea would deny what Alf asserts. But this does not necessitate a relativist position because if "each party could acknowledge that the other's verdict was correct with respective to their way of measuring the sample against items in the comparison class."[89] But given that what judges rank, the properties that make up for the wine's taste, are objective, appeal to judge-dependence of truth does not really make sense.

The more nuanced version of absolutism claims that propositions featuring PPTs have absolute truth conditions but through first-person genericity[90] it is

[84]Note that we distinguish "more-or-less nuanced" with respect to how much room they leave for subjectivity, and not because we think these are not refined views.

[85]As indicated in fn. 21, Hume might be thought to stand for absolutism of this kind. However, while the joint verdict of true judges, of experts, sets a benchmark for what one should *good, tasty, beautiful*, Hume denies that taste judgements can be true or false.

[86]Smith [2007], p. 65. A similar view is given by Lehrer [2009], again with a focus on the case of wine tasting. She revives Putnam to claim that one can be an objectivist when it comes to adjectives used in wine tasting if one is ready to defer to experts' judgements. Furthermore, she recognises that such a view presupposes something that isn't really true, namely that experts agree. However, she outweighs this by pointing at the great deal of agreement among experts on the quality of a wine.

[87]"Judgements of taste go beyond our sensory experience to how things are in the wine itself." Smith [2007], p. 65.

[88]Baker [2014] admits there can be some, but puts limits to it by pulling out the Humean strategy comparing John Ogilby and John Milton. He develops a Humean, paraconsistent semantics for PPTs which accounts both for the existence and for the limits of faultless disagreement, pointing out that his view is analogous to supervaluational accounts we referred in subsection 3.1.3 above.

[89]Smith [2010], p. 206.

[90]Moltmann [2010] and Pearson [2013a]. We developed in Crespo and Fernández [2011] a view which deployed genericity of a specific kind, dispositional genericity (inspired first by Krifka [2012], but more precisely by Menéndez-Benito [2005]). We proposed there an analysis building on empirical work in conversation analysis (cf., fn. 99 in chapter 2) to outline the rudiments

ensured that there is a subjective element in how contents of taste judgements are grasped, which accommodates the phenomenon of faultless disagreement. The first proposal in this line[91] suggests that PPTs force us to interpret assertions like *This is tasty* as actually saying *One finds this tasty*. We assert and interpret generic *one* sentences on first-personal grounds, meaning that we understand such judgements as claims in which the speaker identifies himself with each individual in the quantified domain, hence the commending force of such judgements.[92] When we say that something is tasty, we apply the adjective to everyone in the domain as if to ourselves, taking ourselves to be normal or typical.[93] The proposition expressed by a sentence with a PPT has absolute, agent-independent truth conditions: the generic claim made on the basis of the agent's extrapolation from her own experience is either true or false. In faultless disagreement dialogue participants attribute different properties to the individuals each of them identifies with, but actually "at most one of them is right in extending the first personal grounds to anyone in the contextually relevant domain".[94] In this proposal, PPTs are ambiguous, having a different meaning when used in restricted judgements like *I find this cake tasty*. These are, according to Moltmann, expressive speech acts "not directed at truth". In this case, PPTs are two-place predicates $tasty(i, x)$,

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of a formal theory in line with how taste judgements are used in actual conversation, which in combination with an Information State Update framework (Ginzburg [1996, 2012]) yielded a first outline of a formal account of the effects that unrestricted and restricted judgements have in dialogue. The basic semantic analysis we proposed treated PPTs as two-place predicates with an argument for the experiencer that can be generically bound. So in a way, our view stood in-between representational contextualism and a genericity-based approach akin to those of Moltmann or Pearson. We chose for dispositional genericity to accommodate the idea that the agents that count for such a generalisation are those able to undergo a phenomenological experience of, e.g., taste in the case of a PPT like *tasty*. The dispositional interpretation states an expectation concerning facts, in particular, concerning the result of the an agent's assessment. Unlike the contextualist view, the resulting system we sketched was shown to account for the possibility of disagreements over taste. We did not pursue this line further, first of all, because the dispositional genericity interpretation seemed rather *ad hoc*, without strong linguistic support beyond the its usefulness in dealing with the desiderata presented here in chapter 2, section 2.3. Second, and more importantly, since the expectation built in dispositional genericity is one of facts, it became apparent that the phenomenological experience of agents was turned into a matter of fact. This view would be liable to the objection we give below in section 3.3, it objectivises subjectivity.

[91] In Moltmann [2010]. Our reconstruction of her view spares lots of technical details for the sake of brevity and focus. Hopefully this will not make it too difficult for the reader to get an idea of the core of her proposal, which is what interests us most.

[92] The details of this kind of genericity are given in terms of Moltmann's analysis of the generic pronoun 'one' developed in Moltmann [2006].

[93] This closely relates to the proposal in Sassoon [2009]. So to some extent, Moltmann's view is quite close to contextualism, except that (a) she ensures that the group of people that count are those that the speaker identifies with, and (b) in her proposal, first-person-based genericity provides the epistemic basis for applying the PPT at hand, rather than fix the content or the contextually prevalent linguistic rule.

[94] Moltmann [2010], p. 25.

where the attitude verb *find* fixes the experiencer-argument. The resulting sentence simply expresses the experiencer's subjective stance. This would explain why denial of a first-person restricted judgement is blocked.[95]

A second option along these lines says that "PPTs such as *tasty* are used to make statements about whether something is tasty to people in general, based on first-person experience."[96] When we say *This cake is tasty*, we roughly say that the cake is tasty to every (contextually restricted) individual with whom we empathise.[97] In restricted judgements like *I find this cake tasty*, the matrix subject takes care of the binding.[98] Unrestricted judgements like *This cake is tasty* describe the property of being someone such that for all accessible worlds and all relevant individuals in the world with whom our 'someone' identifies with, this cake is tasty to those individuals. Since the "identify with" relation is reflexive, the speaker is included in the generic quantification. In unrestricted judgements, the speaker will be the judge on which the " identify with" relation works.[99] In this way, the nuanced absolutists accommodates not only the commending aspect of taste judgements, but also the speaker's own commitments. This would shed light on the example (39-a) showing that unrestricted judgements imply first-person restricted ones presented in chapter 2, subsection 2.3.3, repeated below:

(6) Alf: This is tasty but I don't find it tasty.

PPTs require that one has had direct sensory experience of a relevant kind: when we say *This cake is tasty*, we commit ourselves to finding the cake tasty.

So disagreements about taste are genuine when the set of individuals ranged

[95] In his preliminaries (his option 3b), Lasersohn [2005] briefly considers and dismisses a "genericity reading", but the view he rejects is far more simple than the one proposed by Moltmann.

[96] Pearson [2013a], (43).

[97] Pearson implements this idea by taking PPTs to be individual-level predicates following Chierchia [1995], PPTs thus have an internal argument because of the syntax given Chierchia's view of the licensing conditions for ILPs. The variable introduced by a PPT's covert internal argument is bound by the generic operator which varies ove rall relevant individuals in the world with whom our 'someone' identifies with.

[98] Although Pearson does not address this explicitly, one could guess that she would predict that all individual stage predicates would be embeddable under *find*, since being an individual stage predicate is the reason why PPTs come with an internal argument that needs to be bound.

[99] Unlike Moltmann [2010], who conceptualises the generic identification via qua objects (following here Fine [1982]), Pearson's "identify with" relation involves empathising with other individuals rather than simulating them, so it does not require the use of qua objects. Pearson is also more conservative in not appealing to attitudinal objects (Moltmann [2003]) in order to make restricted taste judgements truth-evaluable. Instead, for Pearson sentence meanings are of property type, with a truth evaluable object obtained by application of the property to the speaker. Sentences containing PPTs thus come with an abstraction operator in the left periphery of the clause binds the variable responsible for the first-person oriented interpretation of the sentence. This allows Pearson to treat uniformly restricted and unrestricted judgements, because the variable introduced by PPTs is bound by the most local abstraction operator.

over by the generic quantifier remains constant for both dialogue participants, for in such case the truth value of *This cake is tasty* is not expected to vary at all. It varies, however, when the individuals that speakers identify with are not the same. Each of the dialogue participants is right in such case because each of them makes a true assertion when they make sincere reports of their tastes. Here each speaker is held to have epistemic privilege with respect to sensory experience, and for this reason a sincere report, not only first-person restricted like *This cake is tasty to me* but also unrestricted ones like *This cake is tasty*, cannot fail to be true if made sincerely.

The absolutist gets the easiest explanation of there being a disagreement in a taste dispute. If the statements uttered by Alf and Bea are true or false *simpliciter*, and given that Bea denies what Alf asserts, then only one of them can be right. We have, however, a few observations against this view. The genericity approach is interesting because it digs somewhat deeper into a conceptual characterisation of subjectivity in PPTs. It highlights the way expectations take our own preferences beyond our own case when we say, e.g., *This cake is tasty*. It puts on the table the normative force of unrestricted judgement, i.e., the fact that they make a claim to the agreement of others. However, the postulation of an ambiguity for *tasty*, with a different lexical item being used depending on whether the adjective is used in a restricted or in an unrestricted judgement, is undesirable. Such an approach blocks any straightforward explanation of the relation of unrestricted and restricted judgements. To put it bluntly, why is the expressive dimension of PPTs only *sometimes* present? Moltmann divides between an assertive and an expressive speech act but does not really illuminate their relation.[100]

In the second alternative we see an effort to bring in experience as a requirement for using certain adjectives. However, in this view the virtues of the first alternative are lost. Pearson's speaker identifies with others but she does not take herself to be normal or typical. Without this, it seems that unrestricted judgements like *This cake is tasty* come too close to generalisations like *People find this cake tasty*, where *people* is contextually restricted to a set of relevant individuals. Furthermore, Pearson's analysis of subjectivity is epistemologically problematic. She claims that sincerity is sufficient to guarantee the truth of a first-person restricted judgement of taste like *This cake is tasty to me*. So for this approach subjectivity comes at the price, and with the issues, of privacy. If truth hinges only on truthfulness, there is no criterion; hence, there is no room for empirical mistakes. Thus, speaking of truth and falsity in the case of a first-person restricted judgement seems, in the end, to make very little sense.

[100]We will see a more systematic treatment of the expressive dimension of taste judgements in Buekens [2011]'s view, presented in the coming section.

3.2.4 Expressivism

As announced early on, expressivism comes in various flavours. It is most natural to consider expressivism as an option rejecting the assumption that taste judgements are truth-apt, for this is a straightforward way to say why taste disputes are faultless. In this a view, taste judgements are subjective not because their truth, content, or grasp conditions are judge-dependent, but rather because they are not truth-apt in the first place. They express a non-cognitive attitude of approval or disapproval of the object under assessment. Note that for these varieties of expressivism, "it is the job of a semantic theory to explain what a sentence, 'P', means, by saying what it is to think that P."[101] So even if expressivism introduces two distinct kinds of contents, truth-apt and non-truth apt, it shares with truth-conditional approaches the assumption that the meaning of a sentence is given by the state (truth-apt or non-truth apt) it expresses.

Most notorious views in this direction are concerned with moral language, and how it differs from ordinary descriptive language. Ayer's and Stevenson's emotivism, and Hare's prescriptivist views on metaethics (and normative discourse, more generally) defended the idea that moral sentences are not true or false, they are not used to make assertions. Applied to the case of PPTs, such a position would say that the meaning of PPTs is different in kind from the meaning of other adjectives, close to how Moltmann sees PPTs when used in expressive speech acts like embeddings under *find*. An Ayerian or Stevensonian view on the semantics of these assessments would propose that the utterances in a so-called faultless disagreement are non-cognitive expressions of (dis)approval or (dis)content. Taste disagreements would be diagnosed as disagreements in attitudes or in sentiments, which makes it obvious why Bea's reaction in a faultless disagreement does not prove Alf's wrong.[102]

Expressivism of this sort, as inspired by emotivism, succeed in putting emotions in the scene, to throw them in the debate of the meaning of PPTs. For expressivism, judgements featuring PPTs would be necessarily related to an individual's attitudes, but where judgements are not *about* such attitudes. The (dis)approval is expressed, rather than asserted. One comes to know, assuming that Alf is sincere, that he is allured in a certain way. But this kind of approach has to face multiple challenges. We should note right away that a simple view like this seems to lose grip of there being a disagreement in a discussion like Alf and Bea's. If a disagreement is given by there being a proposition that Alf asserts and Bea denies, then the simple expressivist just refuses to accommodate that there is a disagreement in a discussion like Alf and Bea's. But the most well-known and perhaps most pressing objection is the Frege-Geach problem. For the case of PPTs, this is the demand that an adjective like *tasty* should mean the

[101] Schroeder [2008a], p. 704.

[102] See in Huvenes [2014] a position where faultless disagreement is diagnosed as disagreement in attitude, but where this is supported within a truth-conditional framework.

same when used in a atomic unrestricted judgement like *This cake is tasty* and when this judgement relates via logical connectives with other, possibly descriptive judgements, as in *If this cake is tasty, then we will buy another one next week*. The same is demanded for cases where an unrestricted judgement appears in the course of what a logical deduction, as in (7-a), or when embedded under what we usually understand to be a propositional attitude, as in (7-b):

(7) a. (P1) If the roller coaster is fun, then I will buy a ticket.
(P2) The roller coaster is fun.
(C) Therefore, I will buy a ticket.[103]
b. Alf believes that the cake is tasty.

So any theory which appeals to different kinds of meaning to explain the normative or evaluative force of PPTs should also accommodate the fact that the evaluative and the descriptive kinds interact and are in some cases inseparable. In this sense, views on PPTs like Kennedy's or Umbach's which cash out evaluativity in a truth-conditional framework provide a very elegant way to avoid this objection.

Contemporary expressivist theories like those offered by Blackburn and Gibbard[104] generally make a different claim because for them the difference between the normative and the descriptive realm comes at the level of mental content, and not at the level of language expressing those contents. They claim for instance that moral sentences are different from descriptive sentences because moral sentences express desire-like states of mind. In Searle's terms, descriptive sentences express a state with mind-to-world direction of fit, while normative sentences (in particular, taste judgements) express world-to-mind states. How would such a position account for faultless disagreement?[105] If we take taste judgements to express desire-like states of mind, a disagreement is a situation in which discourse participants hold incompatible mental states: their wishes, goals, and plans can be held simultaneously by different agents, but not simultaneously by a single agent, and when held by different agents a rupture of cooperation ensues.

These contemporary expressivists are well aware of the Frege-Geach challenge. By pushing the discussion from language to thought, these views do not postulate a distinction between how normative and descriptive language work. But the burden is transferred, then, to explaining how belief-states and desire-states may interact when PPTs and other normative terms work in non-atomic statements. The challenge for expressivism that the traditional, truth-conditional would voice is to characterise the mental states expressed by normative sentences to be similar

[103]The example comes from Wolf [2014] who notices that if P1 is uttered by Alf, and P2 is uttered by Bea, then Alf is not bound to assert the conclusion.

[104]Blackburn [1984, 1998] and Gibbard [1990, 2003].

[105]For an extended (but ultimately rejected) attempt to build a Gibbard-like approach to PPTs, see MacFarlane [2014], section 7.3.

enough to belief states expressed by descriptive sentences, in order to "provide a uniform and general explanation of why a sentence and its negation are always inconsistent, no matter what kind of mental state that sentence expresses."[106] In any case, the view on disagreement that such a view on PPTs would offer is problematic.[107] In a way quite reminiscent of Moltmann's simulation and Pearson's emphathising, Gibbard's agents may treat the others' plans as if they were their own. If Bea take's Alf's plans to prescribe her own behaviour, she has a planning problem, so she should signal this and reject Alf's proposal. But, as Gibbard himself admits, we are not logically forced to treat differences in plans between ourselves and others as disagreements.[108]

Buekens[109] takes up the task of accommodating the "expressive-affective dimension"[110] of judgements of taste. He proposes what he calls a "semantically kosher alternative to traditional expressivism",[111] in particular one that can face the Frege-Geach problem. He defends a version of semantic minimalism combined with speech act pluralism, in the sense of admitting that "one can perform different speech acts, hence create different pragmatic commitments with one single utterance".[112] When we utter an unrestricted judgement featuring a PPT, there is one proposition that is the content of the sentence we assert, a proposition whose truth value is not judge-dependent. But by uttering such judgements, we can perform two speech acts *at the same time*.[113] We can perform an assertive speech act and an expressive speech act. Relativists and contextualists miss this important pragmatic layer, the expressive-affective dimension of the utterance. This variety of expressivism is said to be kosher because it does not claim there are two distinct kinds of contents; the expressive dimension has to do with prag-

[106]Schroeder [2000], p. 4.

[107]Ridge [2013] criticises Gibbard's view on disagreement claiming that it accommodates disagreement only via a transcendental argument. MacFarlane [2014] offers similar criticisms, although he presupposes his own analysis of disagreement (as preclusion of joint accuracy), and stands against expressivism of all sorts. For this reason, we choose to give here Ridge's objections, as he provides a positive expressivist account.

[108]Ridge [2013] proposes an analysis of disagreement based on conflicting prescriptions, which would be how someone advises someone else to act under suitably idealised conditions. To give such honest, fully candid, and non-hypocritical advice, "one must take oneself to be inclined to act as one advises ones interlocutor to act if one were in exactly her circumstances." (Ridge [2013] , p. 57) Again, then, we see a form of self-application of the prescription provided by a normative judgement.

[109]In Buekens [2011].

[110]Related to the notion of expressiveness of derogatory terms recently discussed by Potts and first introduced by Cruse [1986]. See fn. 66 above.

[111]Buekens [2011], p. 641.

[112]Buekens [2011] adds, he is a minimalist but "not necessarily in the more radical sense, defended by semantic minimalists who contend that the content of 'what the speaker said' is radically underdetermined by the compositionally determined semantic content of the utterance (Cappelen and Lepore [2005], Borg [2004]).

[113]This is a neat difference with Moltmann's view which separates the assertive and the expressive dimensions.

matics and not with semantics.

According to Buekens, there are no faultless disagreements because when Alf and Bea exchange their judgements, "there is not one proposition the truth of which two speakers can disagree about and yet both be right."[114] In a seeming faultless disagreement, Alf asserts that he finds this cake taste, Bea asserts that she doesn't. The assertive contents expressed by Alf and Bea are not contradictory. The main difference between *I find this cake tasty* and *This cake is tasty* is that the former does not carry the expressive-affective dimension. The conflict arises only in the expressive dimension, not in the assertive one. When Alf asserts that he finds the cake tasty, he expresses his subjective state on the basis of her own experience of her state. Alf has infallible access to his own undergoings. This explains the faultlessness in a case taste dispute. The conflict or opposition results from how the expressive-affective dimension is grasped. To interpret the expressive-affective dimension conveyed by Alf's utterance, Bea has to appeal to her imaginative power. She grasps Alf's expression of his own state if she can imagine herself as having the attitude reported by Alf. Suppose she has tried the cake and her subjective experience was one of displeasure. Then she cannot imagine herself as having the attitude reported by Alf. This view on unrestricted judgements reflects, according to Buekens, the "subject-transcendent" of unrestricted judgements.[115] For Buekens, this recommending dimension is a distinctive aim of social persuasion that taste judgements have, for "only by uttering the former sentence I hope to change your attitudes"[116]

Gutzmann offers a similar expressivist approach except that for him everything gets to be played at the level of semantics, so he could be said to give a non-kosher alternative.[117] He argues for a view of meaning comprising a truth-conditional layer and a use-conditional layer. Following Kaplan [1999], who squibs an idea of how to specify felicity conditions for typical examples of interjections like *ouch* and *oops*, Gutzmann is optimistic about how these two layers can be integrated. Gutzmann proposes what he calls a hybrid semantics in which truth and use conditions can work side by side. He adopts a straightforward indexical analysis on the truth-conditional level with judge dependence at the level of character, so that *This cake is tasty* typically boils down to *This cake is tasty for Alf* when Alf is the speaker. This account obviously ensures that *This cake is tasty but I don't find it tasty* is a contradiction. On the use level, "PPT utterances often

[114]Buekens [2011], p. 637.

[115]He relates back to the Kant how he analyses aesthetic judgement, about which we will say much more in chapter 4.

[116]Buekens [2011], p. 649. A related claim will be made in own positive approach, although we will not make this play at the level of pragmatics as Buekens understands it here, and we will not think of persuasion as a goal but rather as a by-product of the claim to the agreement of others made by taste judgements.

[117]In Gutzmann [2014].

carry a normative component about what shall be considered as tasty."[118] The truth-conditional layer takes care of the faultlessness of a taste dispute: when Alf says *This is tasty for me* and Bea says *This is not tasty for me*, no one is proved to be wrong. The use-conditional layer takes care of there being a disagreement in a taste dispute. Dialogue participants disagree on what shall count as tasty in the utterance context.

An issue with non-kosher expressivism is that it claims that the expression relation is the same for prescriptive and for descriptive sentences; these differ in the kind of state they express, not in the expression relation itself. But then one has to explain how the expression relation can work and harmonise two different sorts of content. We won't review this kind of objection here,[119] but rather indicate that expressivism creates a division between descriptive and prescriptive sentences, between kinds of meaning, or between kinds of contents that sentences express, and then has to face the problem of the union and resemblance. How can these two kinds of sentences, meanings, or mental contents interact? If they are so similar, then what exactly is the decisive difference? In other words, if truth- and felicity-conditions are as similar as Kaplan [1999] suggested, then should not we try to find a way to conceptualise meaning in such a way that we put these two together instead of making a division?

Kosher expressivists do not go that far but this solution again introduces a separation between descriptive and prescriptive discourse, for apparently only taste judgements would require speech act pluralism to make room for the expressive-affective dimensions. Furthermore, if one claims that an unrestricted judgement like *This cake is tasty* may have equal semantic content as a generalisation like *People (in a survey) find this cake tasty*,[120] then if there is no contradiction in (8-a), there ought to be a contradiction in (8-b), but this does not seem to be the case (as already indicated in chapter 2, subsection 2.3.3):

(8) A: This is tasty but...
   a. ...I don't find it tasty. (?)
   b. ...people don't find it tasty.

On the other hand, the weak link between the assertive and the expressive-affective dimension opens up too many possibilities. The semantic content of, e.g., *This cake is tasty* does not dictate which attitude is the right one to express. However, there is a practical sense in which not just any gesture or behavioural pattern fits an evaluation like *This cake is tasty*. While some typical gestures accompany such a positive evaluation, other gestures typically go with a negative evaluation, to the effect that showing a typical gesture of the latter form while making a positive evaluation would have the effect of suggesting that the speaker

[118] Gutzmann [2014], p. 16.
[119] Schroeder [2008b] provides a neat argument for this point.
[120] As Buekens [2011], p. 641, suggests.

is being ironic or otherwise insincere. So simply how things are with an agent when she speaks is too weak a requirement, for there are typical gestures and behaviour which "do not belong" to *This cake is tasty*.

On the other hand, the invitation to empathise with the speaker is too weak. First, because in general, when making an invitation one is prepared to take a "no" for an answer. A taste disagreement is more than a disappointment for the speaker: the addressee who disagrees does not merely turn down an invitation, she questions the very claim that the speaker made. Second, because a condition for making an invitation is that one can assume that the invitee is available. This would predict that *This cake is tasty* could not succeed to express this attitude if the interlocutor has already uttered *This cake is not tasty* . But this is precisely the context in which an evaluation has expressive force! Unlike an invitation, a normative claim succeeds in being made even when one knows that in fact, those onto whom the claim is laid down are not prepared to abide.

In this section we have discussed four different poles in the debate concerning the semantics of PPTs. We shall now step back and address more general issues underlying these modeling strategies of gradability and PPTs.

3.3 Judge-dependence, subjectivity, objectivity

Our main goal here is to give a critical assessment of how subjectivity is conceived within the theories of gradability and PPTs we have presented in previous sections. Subjectivity is conceptualised as some form or other of judge-dependence. An adjective is subjective when its contribution to the meaning or conversational effects of a sentence where it features somehow depends on agents individualistically conceived. This is the main axis around which the debate revolves. The issue is, or so we shall argue, that subjectivity is being placed within a semantic framework which is built upon a primordial eradication of the subject, a priority to resist psychologism in the time of Frege. Our first point will be that by putting the subject as a judge anchor of sorts, the functions yielded by these systems are not rules governing the successful interpretation of sentences in communication. Judge-dependence as privacy or privileged access threatens the possibility to accommodate intersubjective understanding. This is discussed in subsection 3.3.1. Our second point will be that subjectivity we end up with is objectivised, as argued in subsection 3.3.2.

3.3.1 A battle about where to place the judge

When we speak of judge-dependence here, we intend to cover not only the issue disputed by those four views on PPTs we have reviewed in section 3.2. We also wish to cover the idea of how a subject is thought to play a role in the semantics of gradable adjectives within the frameworks of degree-based or delineation-based

theories, as judge-dependent degree mappings, standards, delineations, or dimensional compositions. So in this general sense we use here, judge-dependence does not just refer to the discussion of whether it is syntactically and/or semantically motivated to represent a judge, and where to place it, but rather to a view that holds that some aspect of meaning may depend on a single individual.

This idea of subjectivity becomes a obstacle for an account of intersubjective understanding, for the non-privacy of linguistic rules, and for the normativity of unrestricted judgements. When the subject is conceived of as an individual on whom the meaning of an adjective or judgement hinges, we are left with no intersubjective criterion according to which there can be applications and misapplications. This argument is the springboard towards our own positive account of how subjectivity is related to gradability and normativity developed in the subsequent chapters.

To be clear, we will *not* claim here that judgements featuring PPTs and other gradable adjectives are not truth-evaluable, as a classical expressivist would have it. Our claim is more subtle but in a way, also more principled. We think one may well define truth-conditional content of taste and related judgements, as shown by the many different attempts we have seen so far. We just think this is a deadlock in the pursuit of the question about the subjectivity in the meaning of (some) gradable adjectives. A truth-conditional account puts the psychological realm of individuals aside of that which constitutes meaning. Therefore, when one tries to put the subject in that picture, the equilibrium that gives truth-conditional semantics its force and drive are lost. The expressivist move does not fare much better because it puts subjectivity aside as an additional layer whose integration remains to be explained, and whose non-cognitive character is assumed but not justified, as if emotions and affects could simply be deemed non-cognitive. We will plea for a different account of meaning and subjectivity. One should be able to say when a taste judgement is true, but this should not constitute the starting point for the characterisation of the meaning of PPTs and other gradable adjectives.

Meaning that matters to truth-conditional semantics is first and foremost sentential meaning, and the meaning of a sentence is exhausted by the specification of what should be the case for the sentence to be true. Intersubjective understanding is warranted by the objectivity of truth: an addressee understands what a speaker says because that which determines what is meant are the truth conditions for the sentence, which are independent of what one or other dialogue participant may in fact know about what is the case. Given a context, the meaning of a sentence is that which obtains that makes the sentence be true. The non-privacy of linguistic rules is given by the equal accessibility that, in principle, any language user has to what has to be the case for a sentence to be true. Rules which recursively define the truth-conditions for the sentences of a language are normative only insofar as one abides by a governing principle according to which telling the truth, or taking others to do so, is what we ought to do.

This approach to semantics rests on a well-known anti-psychologistic attitude, by means of which contingent features of linguistic agents are cut away from what is relevant for linguistic meaning. But when the subject is cut off the notion of meaning in this way, putting it back in the picture is dubious and problematic. On the one hand, it seems that the resulting notion of subjectivity is as a form of judge-dependence, reminiscent of the Cartesian picture of subjectivity that has been long discussed and regarded with suspicion. (More on this will come in chapters 4 and 5.) On the other hand, this is problematic because the addition of a judge on which meaning somehow depends endangers the explanatory power of truth-conditional semantics in different fronts. Contextualism argues that a plurality of idiolects concerning PPTs and related adjectives exist which leads to a conceptual dead-end when one considers how a single individual may give herself a linguistic rule and follow it. For relativism, a plurality of realities — one per judge — seems to be created, which threatens the intersubjective warrant in the truth-conditional picture. Nuanced absolutism rests on the assumption that the realm of experiences we communicate with evaluative judgements is exclusively accessible to each individual, where each judge enjoys a privileged and therefore unique and incorrigible view on herself. When a judge is the only one that has access to that which determines the truth-conditions of her claim, intersubjective understanding melts down. Finally, expressivism also aligns with judge-dependent accounts, notably in how they conceive of the assertive dimension, but also in the way expression is associated with the realm of single individuals.

Contextualism and a plurality of idiolects

The contextualist places judge-dependence in the relation between language and reality.[121] The claim that we live in a myriad of idiolects is not new in semantics.[122] In our discussion we do not want to address those past claims about the need or convenience of a plurality of idiolects, we rather scrutinise the idea that a plurality of propositional contents — one per judge or relevant group, as different contextualists argue — could make communication possible when our judgements involve PPTs.

According to the contextualist account, the participants of a faultless disagreement attach different senses to the same expression. As we saw in subsection 3.2.1, it is a consequence of this analysis that when two judges actually agree in their judgements, this is not necessarily done on the basis of common understanding. Both may use the same term while they actually hinge on different standards.

[121] Here and below, we have in mind the classical division of Ogden and Richards dividing the mental, the realm of language, and reality as components of a theory of meaning.

[122] Cf., Chomsky [1955], Davidson [1986]. But while these authors give arguments to defend the idea why linguistics and/or philosophy of language should focus on idiolects, the contextualist in our discussion does not. Lacking such a defense, and assuming that a formal theory of meaning should make room for successful communication, the claim of contextualists is lacking.

Therefore, assent or acceptance of a speaker's judgement is not an agreement with its content. This assimilation of disagreement to misunderstanding is quite unattractive because it turns out that communication involving such judgements is not possible. In very simple terms, if an eavesdropper Carl listens to a conversation between Alf and Bea in which Bea agrees to Alf's claim that *This cake is tasty*, and if Carl judges and/or expresses that he agrees with Alf's claim, then he may not agree to the same as Bea has agreed to.

A deeper problem, one related to the rule-following considerations,[123] relates to the idea that faultless disagreement reduces to metalinguistic disagreement. This view assumes that individuals can give themselves rules and follow them. Such an idea fails for two reasons. First, because if it is up to an individual to determine the rules she follows, she may change them anytime, which means that her linguistic behaviour is not normatively guided by these alleged rules. If judges may employ different linguistic conventions, and if no one is in a better position to decide which linguistic conventions hold for PPTs, then no other person than the judge herself can provide a warrant for correctness and incorrectness. And as it happens, a person's tastes change, they may even change in a very short amount of time. If an agent can change the conventions she abides by as she pleases, then she cannot be said to be guided by those rules. Metalinguistic contextualism holds that linguistic conventions concerning PPTs are individual, judge-bound. Such an idea seems to carry an inconsistency. A convention or an agreement involves two parties. A single judge cannot convene with himself how he should use an adjective.

Relativism and individual worlds

The relativist places judge-dependence in the relation between mind and reality. Their plea for judge-dependence of truth seems to amount to a claim that the interlocutors in a faultless disagreement designate different parallel realities, where the opinion of each of the interlocutors describes the circumstances in her context of assessment. With the non-sharedness of the reality, the criteria of correctness for asserting unrestricted judgements like *This is tasty* evaporate. When the experiences of which a subject can truthfully talk about are thought of as being given to him and only to him, these experiences stop playing to role of referents. Truth can therefore no longer play the role of being the warrant for intersubjective understanding.[124]

Suppose now the relativist claims that actually any judgment containing a PPT refers to the factual experience undergone by the judge, so that unrestricted judgements designate the state of affairs or possible world (or whichever truth-

[123] Cf., Wittgenstein [1958a], Kripke [1982], Stein [1997], etc.

[124] Possibly one cannot defeat Kölbel's relativism this way but given how close he comes to contextualism, one can probaly extend the argument against contextualism given above. See fn. 65 above.

maker one employs) in which the judge in fact has a certain experience of, e.g., pleasure when eating a cake. If the agent's determination is fully given by facts of the world, she does not describe an inner reality. In that case, however, it seems that adding a judge in the index of evaluation is just notation, a label for empirical phenomena that are not subjective in any specific sense beyond there being an agent whose name can be attached to the phenomena under consideration. There is nothing subjective left because experience is turned into an empirical phenomenon which an agent reports.

If the judgements do not describe the judge's factual experience as part of reality, then the judge is somehow not part of reality but she determines the truth of her assertions. In such case, the border between mind and reality is blurred. This softening of the boundaries may not seem a problem by itself but given the idea of meaning embraced by the truth-conditional supporter, the consequences are unappealing, for it seems that unrestricted judgements may be true just by virtue of someone's thinking that it is the case. But then the warrant for intersubjective understanding which is at the core of the idea of meaning provided by truth-conditional semantics comes under threat, because if the thoughts of a judge may be the sole criterion for the correctness of what she says, then that criterion is per definition not shared. In other words, if all that matters for the truth of *This is tasty* is whether a judge likes a cake, when the judge likes the cake her judgement is in a sense self-verifying.[125]

Absolutists and privileged access

The more nuanced trend of absolutism we have presented places judge-dependence in the relation between language and mind. Since truth-conditions and content of taste judgements are conceived as absolute, i.e., universally shared by the speakers of a community, in this proposal there is no loss of intersubjectivity as encountered above, in relativism and contextualism. However, the first-person based genericity deciding which people come under the *One* quantifier comes with a distinct first-personal cognitive access to the propositional contents expressed by these judgements. So there is a form of judge-dependence in these views, as regards access to that which determines what property the evaluation expresses.[126]

[125] A relativist view like Stephenson's comes with a pragmatic theory of conversation in which assertion of φ is allowed when the speaker believes that φ is true. Even though the conversational effect of adding this assertion to the common ground is that all conversation participants are thereby committed to agree with the speaker, the speaker's own belief of the truth of unrestricted judgements like *This cake is tasty* does not depend on anything but herself, and *this* is the problem we are signaling here.

[126] Pearson [2013a] entitles her article: "A judge-free semantics for PPTs". She keeps her promise, as she "does not appeal to a judge parameter as a component of the evaluation index" (p. 1). However, first-person orientation is a sort of epistemic privilege that an individual has with respect to some of her claims. In this sense, there is a form of judge dependence in her proposal.

However, there is no uniform definition of what "first-person orientation" is. Here we distinguish and discuss separately four different claims that are associated to this notion.[127] However, the core idea of first-person orientation depicted by their theories is by-and-large shared.

The first claim is that asserting or interpreting a taste judgement involves the application of the property that is expressed by this sentence to others as if to oneself. As we saw before, the agents whom an agent identifies with should be those who are normal "in the relevant respects", after one has abstracted away from the particularities of their own person and situation. A judgement like *This cake is tasty* generically quantifies over people in the domain with whom the agent identifies with, who are thus said to share the agent's assessment. We generalise beyond our own experience to the likely experience of anyone with whom we empathise who might eat the cake and claim that they find it tasty too. On the one hand, this is somewhat surprising because it seems that the first-person's distinctive perspective is precisely given by that which makes an agent who that agent is, all particularities comprised. The idea of simulation might involve a difficulty: if the agent generalises her own situation abstracting from features of his situation that are particular to herself, then the generalisation may well ignore that she finds the cake tasty, which may be taken as a feature of his situation that is particular to herself. On the other hand, if an agent can only rely on inherently subjective contents in order to determine her own assessments, how can she ever take others to share her views given that these are per definition of a purely subjective attitude?

The second claim is that an agent needs "direct evidence" to make taste judgements, which is supposedly made clear by the contrast of an unrestricted judgement with a claim like *The cake must be tasty*, which are taken to be based on "indirect evidence". This is a most reasonable idea if by "direct evidence" one understands "experience of the relevant sort".[128] But if by "direct evidence" one means something like "evidence that only the experiencer can have",[129] then this idea carries significant philosophical consequences. The basic issue is that this notion of "direct evidence" related to our embodied experience of, e.g., tasting a cake, is taken to be grounds on which the truth of a statement can be supported, whereas the same sort of embodied experience seems to resist this role. When considering, for instance, the Müller-Lyer illusion illustrated in chapter 2, fig. 2.1, the visual experience we have is certainly *not* firm ground on which the truth of a claim like *The segment in the image above is longer than the one in the image below* can be supported.[130] What we want to point out is that talk of truth

[127]Proviso: even though these different senses appear in these authors work, not all four belong to either one or other author.

[128]This is the kind of constraint we tried to capture in Crespo and Fernández [2011].

[129]Already present in Stephenson [2007]'s remarks about the attitude verb *find* and made acceptable as well by how this association is made in discussions about linguistic evidentiality.

[130]Or, in the form of Berkeley's classical example (Dialogue 1), my experiences of finding the

exclusively on the basis of our sensory experience is problematic (more on this will be said in chapter 5).

When we have evidence for a certain judgement, we can provide a justification for why we claim that the judgement is true, or at least this is how we usually think of evidence. But in the case of taste judgements, this supposed "direct evidence" I have when I have tasted the cake cannot function as justification that may lead someone else to assent to the truth of my claim. I tell you that this cake is tasty, you ask me why, I tell you *Because I find it tasty!*. This just misses the whole point of justification. It seems then that "direct evidence" is actually not evidence at all, at least insofar as evidence can provide justification for the truth of our claims. If it makes sense to claim that a taste judgement is true, then, justification should be found outside of the experience of a single agent. It is completely reasonable to pay attention to the requirement posed by certain adjectives concerning the experience of the speaker.[131] But this observation is not equivalent to calling evidence one's experiences.[132]

The third claim is that taste judgements require first-personal cognitive access to propositional contents. Conditions for grasping content essentially differ between dialogue participants because each participant has immediate or privileged access to her and only her experience. But this leads to the undesirable scenario in which an agent may know the truth of a claim but where no one else is in a position to accept that.

The fourth claim is that sincere expression of one's opinion in matters of taste cannot fail to be true. But if conditions of grasping contents are individual and lead to infallible knowledge, there is no room for correction. This is the locus of the Cartesian nature of the idea of self forged by these views. Those who defend an idea of subjectivity based upon notions like infallible or privileged epistemic access to one's own undergoings, e.g., to one's tastes or moods, follow a long but not thereby unproblematic tradition: the linguistic self seems to coincide with the Cartesian self, the ego cogito. But when this picture is adopted, no criterion for truth ensues because a single agent cannot set up for herself a normative framework to name her undergoings or experiences. If there is no way in which an agent may fail to truly say whether she finds the cake tasty, and if there is no criterion which demarcates who the agent may identify with (given that an agent

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water in a vat hot when I insert my cold hand in it, but I may have no evidence that the water in the vat is hot. In fact, I may have evidence that the water in the vat is *not* hot, and still have an experience of finding the water in the vat hot. We do not want to conclude, like Berkeley does, that these properties are not physical.

[131]Facts about how Japanese necessarily requires an epistemic marker like *must* to say something like *The cake is tasty to Mary*, so that one should always say roughly *The cake must be tasty to Mary*, and about Tibetan evidential markers for signaling endophoric judgements and exophoric judgements, underscore this idea. See Backhouse [1994] and Garrett [2001].

[132]So here we disagree with the soundness of the idea that Japanese perception verbs and PPTs require privileged access to one's own sensations and emotions (as endorsed by Bylinina [2014] and put forth by McCready and Ogata [2007]).

may not fail in expressing herself, meaning that whatever she say she's like must be the case), then an agent's first-person based generalisation cannot fail to be true.

We do believe one should see relevant experience as a requirement for making an evaluative judgement involving strongly evaluatives, but to see a particular judgement or a self-ascription as an instance where each and only each separate individual has the last word is not the right path. We believe that agents have a singular phenomenological access to their our own experiences, this will be discussed in chapters 4 and 5. But we also believe that our judgements of taste are not descriptions of states to which a subject has privileged access, to the effect that only the speaker can say whether her description is correct.

The issue is somewhat deeper. The point is: even if I cannot fail to be aware that I am having fun or that I find a cake tasty, this does not mean I have knowledge of it, in the sense that I have a criterion that can serve to convince others. Can I doubt whether I have fun or whether I find a cake tasty? Diachronically, I surely can: I can change my mind. But in general, when we are having fun, there is little room for doubting. If I see the arrows in the Müller-Lyer illusion, I can first see the segment in the image above as being longer than the one in the image below, and after you draw parallel lines showing that the segments are equally long, I can see them as being equal. The switch taking place here is not based on a change in the state of affairs, but rather in my own experience. What was wrong with the previous experience? Is the new experience *the right one*? *Right* and *wrong* are not the kind of predicates you can apply to an experience.

Expressivists and the individualistic view of subjectivity

In spite of the subject-transcendence that Buekens argues for, his view on subjectivity is nonetheless individualistic, similar in that respect to other views we have encountered so far. In making a taste judgement, an agent first and foremost speaks on the basis of her own experiences, which she cannot fail to identify:[133] "speakers are authoritative about what they express when expressing it".[134] The speaker is thus the ultimate source for setting which attitude we, as audience, are required to empathise with. The problem with this view, as with other conceptualisations of subjectivity we have encountered so far, is that it makes it very difficult — if not impossible — for an addressee to be sure whether she's interpreting Alf correctly. But then in case Alf lies and says *This cake is tasty* just to make a compliment, we, as audience, are required to empathise with an attitude that is not the attitude actually held by the speaker. If the speaker is

[133]This is similar to how Pearson [2013a] sees judgements like *This is tasty* or *I find this cake tasty* as reportomg sensory experience to which each speaker has privileged; for Stephenson [2007], we report direct experience of the individual's internal psychological state.

[134]Buekens [2011], p. 650.

the ultimate source of the attitude, and he may express an attitude he does not actually hold, it is unclear what we as audience should empathise with.

Gutzmann conceives of expressivism by adding a use-conditional layer next to the truth-conditional one. He openly endorses judge-dependence of character at the truth-conditional level, so to this extent his account clearly falls under the criticisms we have been offering here. In his own words, "if one makes a PPT-utterance, one is first and foremost making a claim about one owns (sic) taste"[135] Even though he argues that the use-conditional layer develops a deontic force, because he conceives of the use conditional level as fixing what shall count as G (e.g., as tasty when the claim made is *This cake is tasty*), this nonetheless puts forward an unilateral claim on what shall count as tasty which can be seen as a variant of the metalinguistic move already reviewed above..

3.3.2 The objective subject of degrees and delineations

The second general objection we raise is that a truth-conditional approach to natural language meaning forces us to objectivise the subject. Hints of this objections appear in the critical notes we have made earlier in this section, here we try to summarise the core of the argument. When we try to put back a subjective element into the meaning of PPTs once the meaning of gradable adjectives through the lenses of either degree-based or delineation based theories, we lose grip of subjectivity we were seeking for. A judge-dependent mapping, cut-off point, delineation, or composition of dimensions, is in any case an expression of how an object relates to other objects, and not an expression of what we experience with that object. This argument will be extended in chapter 5, subsection 5.1.4, once we get to review the notion of intentionality underlying the notion of meaning that comes with the truth-conditional framework.

Of course, how someone compares two objects says something about how she experiences them. But when the subject's role is limited to that of an anchor for a mapping or a cut-off point, as the degree-based theorist has it, the procedure by which one decides whether to call something, e.g., *tasty*, is the result of a measurement procedure. Instead of expressing one's embodied experience, the adjective is applied on the basis of a systematic onlook at the objects of our experience. So the adjective actually expresses a reflection on our experience, rather than our experience *tout court* (think again of the Müller-Lyer image to see what this distinction refers to). However, it seems that the moment we accept that we call something *tasty* after duly comparing our current experience with the ones we have had in the past, we express a theory about the subject rather than the subject herself.

Both sources of subjectivity fitting the degree-based view lead to trouble. In the case of standards' subjectivity a subject decides how much of property P she

[135]Gutzmann [2014], p. 19.

thinks there should be in an object o to consider it in the extension of P, then the speaker claims that she knows where the precise cut-off point for P lies. There is a fact of the matter, a difference in how much of property P o has which decides whether o is, e.g., tasty, namely, how much of property P o has. In the case of mapping subjectivity, a subject decides how much of property P she thinks there is in an object o, then the speaker claims that o has property P to degree d. As far as this very agent is concerned, this is a measurement, so it is an objective matter. Once we take a point of view different from that agent, that agent's subjectivity is simply given by what she judges to be the case. In either case, subjectivity is objectified.

The delineation view focuses on how an object compares to others in a comparison class. Subjectivity can enter either by fixing a delineation or the priority among dimensions of an adjective. In the former case, a delineation is a set of objects forming a comparison class, and the subject is a mere contextual factor fixing the selection of objects. In the latter case, the subject determines how delineations of different dimensions are put together, but the orderings within each delineation are still given by the comparison class that is picked, so it is ultimately a relation among the objects under comparison what determines what the subject calls *tasty*. So whether something is tasty is, in the end, objective: the fact of the matter that there is a relevant agent and that for that agent the composition or the delineation are so-and-so. The agent becomes a feature of context rather than a subject whose felt experience counts. The subject as a feature of context is more like a prop in a scene than the actor who speaks out her mind and who requires her claim to become part of a common ground. Subjectivity is objectified.

The challenge ahead of us is to work out a notion of subjectivity that does not wind up being objectified and that does not isolate individuals from each other. Subjectivity can and, we shall argue, should be conceived as being inherently related to interactive processes taking place in the interspace of subjects. We should not see it as a phenomenon occurring next to the facts of the world that language allows us to talk about, but it should not be turned into a realm upon which single agents can have access to.

3.4 Conclusion and work ahead

We close this long chapter with a brief summary of the lessons and challenges left by the existing views explored here.

Degree- and delineation-based accounts of gradability are powerful frameworks but they accommodate subjectivity at the price of objectivising it. For semantics to be possible, we need intersubjectivity. Objectivity is simply one way to cash this out, not one that properly preserves what is subjective about a subject when we try to put it into the picture. The delineation-based account makes

less problematic assumptions that the degree-based one given that the issue of having private measure functions is a conceptual loophole in this approach to subjectivity. Relativists, contextualists, nuanced absolutists, and expressivists with respect to the meaning of PPTs associate subjectivity with an individually determined feature of some aspect of the meaning of these adjectives. The subject in her experiential and embodied determinations does not find a place within the boundaries of truth-conditional semantics, for the price to pay is too high, as we lose grip on explaining successful communication in conversations, be those agreements or disagreements. These approaches point at different aspects that surely play an important role in modeling the meaning of PPTs and related adjectives. Both context of utterance and context of assessment play important roles, as pointed out by contextualists and relativists, respectively. Taste judgements reach out to others, they transcend the individual, something that both absolutists and expressivists point out and which both camps trace back to Kant. As the former suggest, taste judgements claim other people's assent and in that sense they are not so different from just any other judgement. But as the latter put forth, there is some affective and expressive trade going on when we make taste judgements, they relate to reactions like *Yuck!* or *Yummy!*, which are typically thought to fall outside the scope of truth-conditional semantics.

In the following two chapters, we take up the lessons drawn here. In chapters 4 and 5, we revise the idea of how subjectivity and meaning can come in contact with each other by a path which does not assume judge-dependence because it is couched on the phenomenological stream according to which embodiment, perception and sense-making are essentially intersubjective affairs. Our work ahead is to bridge a tradition which sees language as a calculus of meaning with an anthropological conception of language.[136] Our first move, in chapter 4, will be to deepen our understanding of Kant's view on aesthetic judgement, to see what the claim of universality made by taste judgements exactly amounts to, and how taste judgements relate to other judgements. The proper place of subjectivity is not in a judge-argument but rather in a community of sense-making, an idea we will support by looking at how taste and similar judgements relate to what Wittgenstein called certainties. This epistemological quest will shed light on how subjectivity enters into the semantics of evaluative judgements while these still make a normative claim when formulated unrestrictedly, and how to take up these insights in a semantic framework that does not force us to objectivise the subject.

[136]This way of framing traditions is actually presented as a pair of alternatives by Hacker [2014]. We think these alternatives need to meet.

Chapter 4

The epistemology of taste

Our positive proposal on how to make sense of subjectivity in predicates of personal taste (PPTs, as we have labeled them) and other relative gradable adjectives (dubbed RGAs in previous chapters) starts here with an epistemological inquiry into the normativity of judgements containing these adjectives. We need a better grip on what making or understanding evaluative judgements amounts to, in order to see how to redress the semantic analysis we are after.

Unrestricted judgements like *This cake is tasty* or *This suitcase is heavy* demand the assent of others. But only the latter can, sometimes, be made on the basis of evidence that can persuade others to think like we do, and to prove them wrong if they do not. Our attempts to persuade others when it comes to taste are not made by offering proofs for the purported falsity of their judgements. Our goal here is to explicate the notion of (in)correctness at stake in taste and similar judgements. This will give us a first lead on how to account for intersubjective understanding when we exchange evaluative judgements.

Fortunately, we are not alone in this search. In his [1790],[1] Kant offers a way to see how taste judgements[2] can make a claim to the agreement of others without relying on veridicality. Wittgenstein's late epistemology and philosophy of psychology also provides a rich source of observations on how the (in)correctness of certain claims lies outside the realm of what we prove true or false, and how claims concerning one's feelings and experiences can be successfully understood by others. Our deployment of Kant and Wittgenstein should be seen as an argumentative move which does not aim to achieve its exegetical completeness or to

[1]We are aware that the edition of the *Critique of Judgement* we are using is perhaps not the ideal choice (see a critical review in Ginsborg [2002]). We use it for reasons of availability rather than of preference. Note as well that except for a few remarks coming from the Introduction, most paragraphs in Kant [1790] we refer to below come from the First Part, First Section, First Book (*Analytic of the Beautiful*). To reduce clutter, we do not indicate this every time.

[2]Note that Kant's notion of *Geschmacksurteil* is usually translated as "judgment of taste" rather than taste judgment. We choose the latter locution because of its relative simplicity and because it helps us suggest that we do not straightforwardly adopt Kant's view.

imply a full endorsement to their views.[3]

We will first focus on Kant's view on taste judgements, understood as those judgements which are determined by a feeling of pleasure and displeasure, and how they differ from cognitive judgements in which we formulate empirical knowledge. In section 4.1, we will see that Kant claims that the faculty of reflective judgement, i.e., our ability to take our perceptions to be universal, is involved in both sorts of judgement, but in a different way in each case. Its involvement in judgements of taste is the key to Kant's explanation of how they are in a sense subjective, and yet also normative.

We then turn to Wittgenstein's considerations on certainties like Moore's famous claim *This is a hand*, and of avowals like *I am in pain*. Certainties and avowals are different but they have something in common in Wittgenstein's observations. Such statements do not express something true or false, but rather constitute the framework which makes it possible to communicate judgements which are true or false. Certainties and avowals are, in a specific sense, indubitable; they resist correction based on empirical proofs. In section 4.2, we will relate certainties and avowals to judgements featuring PPTs and those featuring other RGAs. We shall see that faultlessness in a faultless disagreement may be best understood by relating it to the groundlessness of our certainties and our avowals. This will not be a plea for expressivism, but rather a step back from the discussion that expressivists engage.

4.1 Reflective judgement and the normativity of taste

The relevance of Kant [1790] to the study of judgements of taste is straightforward to philosophers,[4] perhaps less so to semanticists and linguists.[5] Kant can be

[3]Section 4.2 is partly based on Crespo [2013].

[4]The most eloquent way to put this is Allison [2001]: "The eighteenth century, usually known as the 'Age of Reason', has also been characterized as the 'Century of Taste'. If this juxtaposition seems strange to us today, it is because we have lost sight of the ideal, normative element, which ... was essential to the concept of taste as it developed in the seventeenth and eighteenth Centuries. Thus, whereas for us to say that a question or evaluation is a matter of taste is to imply that it is merely a private, subjective matter lacking any claim to normativity, this was not at all the case in the eighteenth century. On the contrary,... taste was thought of as a special way of knowing, one for which rational grounds cannot be given, but which nonetheless involves an inherent universality. In short, it was not a private but a social phenomenon, inseparably connected with a putative *sensus communis*. Moreover, taste, so construed, was not limited to the realm of the aesthetic, but also encompassed morality, indeed, any domain in which a universal order or significance is thought to be grasped in an individual case." (p. 1)

[5]Both Umbach and Buekens make explicit reference to Kant, so our move should not be so surprising. We will discuss in subsection 4.1.4 the differences between their interpretation and use of Kant's ideas and our own.

seen as facing the same dilemma posed by faultless disagreements, and as making a marked and arguably successful effort to eschew relativism. He argues that judgements of taste are subjective, as we will see in subsection 4.1.1. Therefore, a disagreement about whether a given object is beautiful cannot be resolved by means of argument.[6] However, as we shall see in subsection 4.1.2, they legitimately make a claim to the agreement of others, thus extending the notion of validity of a judgement developed in the *Critique of pure reason*. So for instance, when we make a judgement like *This painting is beautiful*, we do so based on feeling and thus cannot give an empirical proof that could convince our interlocutors, but at the same time we take it that others who perceive the painting ought to judge it to be beautiful as well.

Taste judgements ('Geschmackurteile') as judgments which are grounded on feeling,[7] and in particular on the feeling of pleasure or displeasure, receive a great deal of attention in the third *Critique*. Here we have to introduce an important distinction though. Although one may identify *This cake is tasty* as a paradigmatic taste judgement, actually Kant would put this under a different label, namely under those which he calls judgements of the agreeable, whereas a paradigmatic example of a taste judgement is, e.g., *This painting is beautiful*. Common to these two is that their are aesthetic, in the specific sense that they are grounded on feeling.[8] But *This is beautiful* makes a normative claim: it does not merely report that the utterer has a certain affective response, it also demands that others also ought to have that affective response. Below we will explain further the difference between taste judgements and judgements of the agreeable, and we will argue in subsection 4.1.3 that *pace* Kant, judgements like *This is tasty* can make a claim to the agreement of others, which is precisely what happens in a faultless disagreement. Of course, we will not claim that there are no interesting differences between *beautiful* and *tasty*. We just think that the phenomena we are interested in do not call for making a distinction here.

4.1.1 Taste judgements are aesthetic

In this subsection, we explain why for Kant taste judgements like *This painting is beautiful* and gustatory judgements like *This cake is tasty* are aesthetic. This has a precise meaning in the *First moment* of the *Analytic of the beautiful* in Kant [1790], namely that they are necessarily grounded on the subject's feelings and,

[6] Cf., Kant [1790], esp. §§32-33.

[7] This claim of 'grounding' is not necessarily the same that Wittgenstein discusses in [1969]. While empirical judgements are grounded, certainties are groundless in the sense of not being based on evidence. We will defend in section 4.2 below the idea that judgements involving PPTs are groundless, precisely in Wittgenstein's sense. So in a way we will conclude the opposite of Kant's idea: we will conclude that taste judgements are groundless.

[8] This notion of 'aesthetic' is closely related to the Greek notion of *aisthesis* as designating perception involving the senses. The contemporary use of the term designating a specific branch of philosophy can be seen as taking up the main Kantian concerns.

as such, only bear on how objects *affect* us. Perhaps the best way to understand what this means is to confront taste judgements with cognitive judgements like *This cake contains nuts* in which we make an empirical claim.

Taste judgements are necessarily related to feelings. While in a cognitive judgement like *This cake contains nuts*, we ascribe a specific property to the object, a claim invoking the concept of nut (a fruit composed of a hard shell and a seed) that could be verified or shown to be false, taste judgements like *This painting is beautiful* do not determine a genuine property of the object. They rather express something about the subject[9] making the judgement and her feeling of pleasure or displeasure, and they do not make a conceptual claim that could be verified or falsified.[10] Judgements like *This painting is beautiful* are made on the basis our affective response to the painting. Unlike a cognitive judgement, we cannot infer that something is tasty because it meets certain criteria, or be persuaded of this by means of arguments or proofs. There are no objective rules of taste,[11] This is a basic difference with cognitive judgements, where modulo trust, we accept a judgement on the basis of someone else's claims and the evidence she can offer. For instance, if we hear someone we trust say that a cake has nuts, or be told that walnuts are brown, we can come to hold these judgements ourselves. This cannot be done when it comes to beauty. Unless we have our own experience with the object, we cannot formulate a taste judgement.[12] In this sense, taste judgements are similar to judgements of the agreeable like *This Canary wine is*

[9]We disagree then with Umbach's rendering of Kant's view on the aboutness of taste judgements as being "about properties the subject ascribes to the object." For us, the "as if" ('als ob') in the following passage from Kant [1790], §6 is rather crucial: "Hence he will speak of the beautiful *as if* beauty were a property of the object..." (our emphasis). One can also press on the point made in Kant [1790], §1, where he claims that the feeling of pleasure and displeasure designate nothing at all in the object. More on this will be said in subsection 4.1.2, and further discussion of Umbach's position is provided below.

[10]Kant's account is strongly representationalist: in taste judgements we relate our representation "not to the object for cognition," but rather "to the subject and its feeling of pleasure or displeasure." (Kant [1790], §1.) We would like to remain uncommitted to his theory of judgement as a whole, for we do not feel compelled to follow his representationalist account of judgement. This may be taken to be a contradiction: to ponder on Kant's notion of reflective judgement without endorsing his theory aesthetic judgement, or of judgement as a whole. But after we introduce Kant's notion of reflective judgement, we will argue that it characterises a kind of operation, independently of whether our judgements are representational.

[11]Kant [1790], §7.

[12]One may wonder whether we should not be referring to Wollheim [1980], who claims that "...judgments of aesthetic value... must be based on first-hand experience of their objects and are not, except within very narrow limits, transmissible from one person to another." (p. 233) After all, this idea has already been employed to formulate a semantics for PPTs in Nanan [2014]. First of all, we believe that Kant takes priority here, both chronologically and philosophical. Second, Nanan exploits Wollheim's suggestion by turning it into an "Acquaintance principle" quite reminiscent of Russell's ideas on knowledge by acquaintance. When we get to section 4.2 we will see that taking PPTs to be based on a sort of first-hand knowledge is debatable and problematic.

nice or *This cake is tasty.*

Pleasure in the beautiful is very peculiar, according to Kant, for it seems to follow from the very act of perceiving the object we judge. This becomes a very specific claim, namely, that the faculties of understanding and imagination interact as in cognitive judgements, except that for taste judgements, imagination is not governed by determinate concepts. They are in "free play". "Free play" or free harmony refers to the fact that unlike in cognitive judgements, imagination is not constrained by understanding in taste judgements. There is room for discussion among Kant scholars regarding the intentionality of pleasure.[13] The issue is relevant for us because if Kant would clearly stand against the intentionality of taste judgements, endorsing his views would lead us close to some form of expressivism. A first line of interpretation claims that the feeling of pleasure aroused by our contact with an object has no specific contents, and that taste judgements only have contents because there is a a second act of judgement through which we identify pleasure as the outcome of the 'harmony' of our faculties.[14] This second, separate act yields a prediction: others a likely to undergo a similar feeling of pleasure. A second line of interpretation holds that pleasure comes with a specific intentional content. It is claimed that "the pleasure involved in a judgment of beauty constitutes intentional awareness of the activity of the faculties".[15] The feeling involved in judgements of beauty is an appraisal of how our faculties are enhanced or diminished. A third line of interpretation,[16] the one we follow, argues that to do full justice to the intentionality of pleasure in the beautiful, one should not distinguish the feeling of pleasure in the beauty of an object from the judgement that the object is beautiful. Instead, they claim, "to feel pleasure in an object's beauty just is to take it to be beautiful, that is, to make a judgment of beauty about it".[17] Pleasure in the beautiful embodies a claim to its own universal validity.[18] Taste judgements are contentful because there is an intentional relationship of the feeling to the object, but they are in a sense, self-referential because "Judging an object to be beautiful consists in a single act of taking one's state of mind, in that very act of judging, to be universally valid".[19]

Kant admits that pleasure and displeasure are essentially related to taste judgements and to judgements of the agreeable. However, according to him, a

[13] Here we rely on Ginsborg [2003].

[14] As, for instance, Guyer [1979] argues.

[15] Allison [2001], p. 54.

[16] Aquila [1982] and Ginsborg [1991].

[17] Ginsborg [2003], p. 166.

[18] Does pleasure precede the judgement or is it a consequence thereof? The latter is the view that Ginsborg defends in her [1990b] et ss., which is quite controversial. "The pleasure felt in a beautiful object consists in the fulfilment of a condition that is in some sense required for all empirical cognition. While not itself a cognitive state, it arises when the cognitive faculties engage in an activity which 'belongs to a cognition in general'." (Ginsborg [1990a], p. 67) See an opposing view in Budd [2001].

[19] Ginsborg [2003], p. 166.

line can be drawn between these two sorts of judgements because only the former sort of pleasure is disinterested. The feeling of pleasure connected to judgements like *This is beautiful* does not depend on the subject's having a desire for the object, nor does it generate such a desire, whereas desire is always present in the sensuous gratification typical of judgements on which judgements like *This is tasty* are grounded.[20] Pleasure in the agreeable is produced by an object, and it engenders desire and, therefore, interest in it.[21]

Now we move on to see how exactly taste judgements can be based on feeling and yet make a claim to the agreement of others. The disinterestedness of pleasure in these judgements place a crucial role in Kant's argument concerning their normativity but one can argue whether disinterested pleasure is so crucial as Kant had it, as we shall see in subsection 4.1.3.

4.1.2 Reflective judgement and normativity

For Kant, what distinguishes taste judgements from judgements of the agreeable is that only the former make a claim to the agreement of others. A judgement like *This painting is beautiful* claims intersubjective validity.[22] For Kant, we do not do this when we say something like *This cake is tasty.*

Intersubjective validity is introduced in the third *Critique* as a middle point between objectivity and subjectivity. When we say *This painting is beautiful*, we speak "as if beauty were a property ('Beschaffenheit') of the object and the judgment logical (constituting a cognition of the object through concepts of it)",[23] we take it that others ought to share our judgement. Thus, only for taste judgements can there sensibly be a dispute or a quarrel, not when discussing gustatory delight.[24] In being normative, taste judgements are similar to judgements of experience like *This stone is warm*,[25] that is, to cognitive judgements which make an empirical claim about their object, as opposed to what he calls judgements of perception, like *I find this stone warm.*[26] Normativity is not a characteristic

[20] Another characterisation relates disinterested pleasure to its having no connection with a representation of the object's existence. Cf., Ginsborg [2008], p. 3.

[21] Zangwill [1995] distinguishes primitive and productive interest. Primitive interest is to have a desire that precedes the pleasant sensation. Productive interest is to have desire (or inclinations) be raised by the pleasant sensation. Zangwill argues that for Kant, gustatory judgements are sometimes primitively interested but always productively interested, which is why they cannot aspire to universal validity.

[22] See e.g., Kant [1790], Introduction VII, and §6.

[23] Kant [1790], §6.

[24] At this point, we disagree with Umbach [2014], who claims: "There is no room for something akin to faultless disagreement in Kant's system." We believe the opposite, that is, that Kant's conception of taste judgement tackles the very issue raised by faultless disagreement, the essential tension between subjectivity and normativity.

[25] *Jäsche Logic*, IV, cited in Ginsborg [1990a], p. 69.

[26] This is a convenient paraphrase of the example Kant gives in the *Jäsche Logic*, XVI: "In touching the stone, I feel warmth", cited and discussed in Ginsborg [1990a], pp. 68-69. There

feature of taste judgements. Cognitive judgements are also normative, although not in the same way.

Interestingly, for Kant it does not make sense to make restricted taste judgements like *This painting is beautiful to me*. If we put it in linguistic terms, his claim is that adding an explicit agent to qualify a taste judgement is absurd.[27] Similarly, he claims that whenever we make an unrestricted judgement of the agreeable like *This cake is tasty*, this is actually a shorthand for *This Canary wine is tasty for me*, so it is not possible to make an unrestricted judgement of the agreeable. In linguistic terms, Kant sees the possibility to add an explicit agent as a lexical divide between *tasty* and *beautiful*. Adjectives like *tasty* seem to force an agent qualification, whereas *beautiful* prohibits it.[28] We will not follow Kant's view this far, but rather extend the normativity of taste judgements as he characterises it as being related to unrestricted judgements featuring *beautiful* or *tasty*. The way he sees judgements of the agreeable like *This cake is tasty* and judgements of perception like *I find this stone warm*, as making a report that does not make a claim to the agreement of others, is the way we see restricted judgements like *I find this beautiful/tasty/heavy*. In any case, that will be argued for later on, here our effort is to reconstruct Kant's view.

Taste judgements like *This painting is beautiful* have the form of a full-blown cognitive judgement, a judgement of experience through which we get a concept of the object.[29] The normativity of taste judgements and of cognitive judgements is subtly but importantly different. While for a cognitive judgement, we claim that others should share our judgement because we judge on the basis of evidence, taste judgements make a claim to the agreement of others that is not based on rules, which does not "rest on any concept"[30] or empirical criteria.[31] Our taste judgements make a claim to universal agreement, but we speak as if [als ob] our

is an interesting exegetical discussion concerning whether judgements of experience are logically necessary for judgements of perception (a position put forth by Sethi [2012], countering Longuenesse [1998]).

[27]Cf., Kant [1790], §7. "It would, on the contrary, be ridiculous if any one who plumed himself on his taste were to think of justifying himself by saying: 'This object (the building we see, the dress that person has on, the concert we hear, the poem submitted to our criticism) is beautiful for me.' For if it merely pleases him, be must not call it beautiful." McNally and Stojanovic [2014] seem to align with Kant here with their empirical observation concerning the occurrences of *beautiful + for PP* in the BNC.

[28]This is also noted by Umbach [2014].

[29]Cf., *Jäsche Logic*, §40, Ak. IX, cited in Ginsborg [1990a].

[30]Kant [1790], §8. Note that Kant is not always so clear about the non-conceptuality of taste judgements. In the *Antinomy of Taste*, he makes a weaker claim because he then states that a judgment of beauty rests on an "indeterminate concept" (cf., §57). But it appears that one should interpret this not as a claim to there being an indeterminate kind of representation which can figure in cognition when we judge that something is tasty, but rather as saying that understanding has no determinate content when we judge an object to be beautiful because no concept determines beauty as a property of objects. Cf., Ginsborg [2014].

[31]Cf., Kant [1790], §38.

judgement were objective and based on concepts, while in fact it is not. We take our judgment as "the example of a universal rule which cannot be stated [die man nicht angeben kann]".[32]

The normativity of taste is also specific, i.e., different from that of cognitive judgements, because of the prescriptive character of the normative claim that is made:[33] we demand "not that everyone will [werden] agree with our judgment, but that everyone ought to [sollen] agree with it".[34] Arguably then, for Kant the claim to the agreement of others made by taste judgements is not an empirical presumption, the hypothesis that people will share our pleasure in the object and agree with my judgement, but rather a claim that others ought to do so.[35] Our judgement is meant to serve as an example of how everyone ought to judge. So our disappointment in encountering people, one or many, who in fact disagree with us is not *per se* a reason to give up our taste judgements. But how is it possible for a taste judgement to make a claim to universal agreement while there are no criteria by which we can distinguish correct and incorrect judgements? As we will see below, reflective judgement as a faculty (or, in more contemporary terms, as a cognitive operation)[36] plays a crucial role in Kant's explanation.

In Kant [1790], the faculty of judgement is presented as our capacity "for thinking the particular under the universal",[37] where two operations can be distinguished, a contrast which is not drawn in the first *Critique*.[38] In determinative

[32]Kant [1790], §18. This translation is the one taken up by Ginsborg [2006b], p. 33, which in this case makes a much clearer point than the translation of the edition we are using.

[33]Constrast this with the case of cognitive judgements, where "[t]he force of the 'ought' ... is not practical but cognitive: the normativity that it expresses is that implicit in the possibility of a judgment's being correct or incorrect, rather than that of an action's being the right or wrong thing to do." Ginsborg [1990a], fn. 76.

[34]Kant [1790], §22. Maybe even more stunning is the following claim made earlier in §7. If a person says that an object is beautiful, then "...he says that the thing is beautiful, and does not count on the agreement of others with his judgment of satisfaction because he has frequently found them to be agreeable with his own, but rather demands it from them." Actually, there is room for discussion among interpreters about whether the taste judgements in Kant is normative or merely predictive of how other fellow cognitive agents will likely respond to a given object. Some interpreters think that Kant's taste judgements just set rational expectations about others' perceptual states. (Guyer [1979], pp. 139-147 and pp. 162-164; Savile [1987] and Chignell [2007] follow Guyer.) In contrast, other authors argue that taste judgements are normative because we thereby demand that others ought to feel disinterested pleasure, rather than merely predict that this should be the case (Allison [2001], Rind [2002] and Ginsborg [1990a] et ss.)

[35]Cf., Kant [1790], §§18-22.

[36]To admit this contemporary terminology, one should admit a broad notion of cognition so that it makes room for intentional contents which are not conceptually subtended, so that we do not run into the contradiction of attributing to Kant the idea that taste judgements are cognitive, after all.

[37]Kant [1790], Introduction IV.

[38]Cf., Ginsborg [1990a], although Allison [2001] rather suggests that the distinction is not *explicitly* made, and discusses whether it amounts to a major change in Kant's conception of judgement, as suggested by Longuenesse [1998].

judgement we subsume a particular under a previously given universal, mostly and ultimately the pure concepts of the understanding or the categories.[39] Here the faculty of judgement is governed by the principles of the understanding, so in this role it coincides with judgement as introduced in the first *Critique*.[40] Reflective judgement[41] is the operation by which we do the opposite, i.e., we try to produce new universals in order to classify given particulars. In this mode of operation, the faculty of judgement proceeds not by the principles of understanding but by a principle of its own.[42] This is the transcendental assumption that nature is systematically organised in a way that is purposive for our faculties, "the principle that, for all things in nature, empirically determined concepts can be found".[43] We can find a universal for a given particular because, we assume, particulars form an intelligible landscape for our cognitive abilities. In other words, we need to assume that things in nature form a comprehensible structure.[44] Cognition necessitates something like natural kinds,[45] not as an ontological claim, but rather a condition of possibility for thinking the particular under the universal. Without such an assumption, "human beings would find in it no similarities or continuities that could yield the material for empirical concepts".[46] In reflective judgement, our perceptual experience claims its own appropriateness, to the effect that we expect others ought to have similar experiences. We take our response to

[39]Cf., Allison [2001], p. 14.

[40]Cf., Ginsborg [2014].

[41]The interpretation of the notion of reflective judgement of course calls for divergent views. A rather standard one takes reflective judgment to consist primarily in the capacity for engaging in systematic natural science. But as argued by Ginsborg [1990b] et ss., when reflective judgement is understood as being primarily or exclusively related to the possibility of systematic natural science, it seems harder to understand why Kant takes it to be at the basis of aesthetic judgments which claim universal validity. Kant's account of the connection has been criticised by several commentators as contrived or misleading (Guyer [1979], pp. 33–67). Specifically, Kant's view that aesthetic judgment is based on the principle of the systematicity of nature has been rejected as a distortion of his theory of taste. But Kant claims that "aesthetic judgment, as a special faculty, must be regarded as comprising under it no other faculty than reflective judgment". (Kant [1790], §XX) A related claim made by Kant is that reflective judgement is also responsible for teleological judgements. As a matter of Kantian scholarship, this reveals something about the relation he draws between aesthetic judgement in its pure form, i.e., judgements of beauty (in particular, of nature) and teleological judgements as related to both ethics and biology. There will be something to say in chapter 5 about the relation between taste judgements like we conceive of them, i.e., including *This cake is tasty* and teleology in the sense of purposiveness, or fitness. But we will not establish there a bridge with Kant's notion of teleology.

[42]If it does not have its own *a priori* principle, then it cannot be called a faculty.

[43]Cf., Kant [1790], § XX.

[44]Without such an assumption, "human beings would find in it no similarities or continuities that could yield the material for empirical concepts". Ginsborg [1990a], p. 65.

[45]This 'something like' is important because this is not a claim we wish to attribute to Kant himself. What Kant state is that " nature,... in regard to its empirical laws, has observed a certain economy proportional to our judgment and a similarity of forms which is comprehensible to us". Kant [1790], §XX.

[46]Ginsborg [1990a], p. 65.

be adequate to the object, and therefore that others with an equal or sufficiently similar cognitive equipment ought to respond as we do, which puts intersubjective agreement at the basis of cognition.[47] Reflective judgement plays a crucial role making it possible for us to acquire empirical concepts, and it is thus a condition of possibility of empirical science[48] because it enables us to regard nature as empirically lawlike.[49]

Reflective judgement thus intervenes in making a claim to universal validity, both in cognitive judgements of experience and in taste judgements. But then how these two differ can be traced back to a difference in how reflective judgement works in each case. In cognitive judgements, reflective judgement as a faculty has a classificatory role, for we find a universal for the particular by taking the object to have a feature shared in common with other objects. For Kant, in the cognitive case, we pass from judgements of perception reporting a feeling or sensation, expressed by e.g., *I find this stone warm*, which make no claim to universal validity to judgements of experience like *The stone is warm*, in which there is a claim to universal agreement couched on the empirical properties that we ascribe to the object.[50] Perception here serves a classificatory function, with the aid of the operations of our understanding.[51]

In taste judgements, however, we find a universal for the particular by taking our own response to the object under assessment as being universally valid. In the case of beauty, a judgement claims intersubjective agreement by making a claim to the appropriateness of a response which is not grounded on anything else that the very judgement one makes.[52] Perception is in this case evaluative:[53] it takes the form of an appraisal that claims its own intersubjetive validity. The subject's claim in a taste judgement has the same structure as the claim implicit in her perception of an object as having this or that empirical feature: in both cases, she is claiming that the object ought to be perceived this way. Reflective judgement is exercised when we appreciate an object as being beautiful because we impute our delight in the object to everyone.[54] But unlike a cognitive judgement like *This cake has nuts*, a taste judgement like *This is beautiful* involves the exercise

[47] Cf., Ginsborg [1990b], Preface.

[48] Cf., Kant [1790], §XX.

[49] See Kant [1790], Introduction V.

[50] *Jäsche Logic* XVI, cited in Ginsborg [1990a], pp. 68-69. See as well footnote 26 above.

[51] The function of reflective judgement goes even deeper, because is involved in coming up with the concept STONE in the first place (and thereby, formally speaking, not only making use of, but actually developing the comparison class).

[52] It is curious that for Kant, judgements of beauty on a mass or plural noun are, strictly speaking, not taste judgements but rather "aesthetically grounded logical judgment", and he gives the case of *Roses in general are beautiful*. This problem, the one concerning differences between singular vs. plural nouns is a very interesting one but we will no delve into it for lack of space. See our take on bare plurals in a formal setting in appendix A.

[53] Cf., Ginsborg [2006a].

[54] Cf., Kant [1790], §7.

of mere reflection. We take our response to be one which all other perceivers of the object ought to share, we take it to be the right one, but we do so not based on any concepts, not taking the object to have any specific empirical property. It follows that judgments of beauty cannot, despite their universal validity, be proved. Such perceptions cannot be defeated by evidence because when we treat the object as if it had a feature that requires that everyone experience pleasure in it, no determinate concept is applied. Judgements made by others can make us wonder about our own judgement, but they can never convince us that ours is incorrect.[55] As a consequence, taste judgements cannot be proved or endorsed on the basis of testimony or hearsay. This is a revealing difference between taste judgements and cognitive judgements.[56]

We mentioned in the previous section that Kant makes a big deal of the disinterested character of the pleasure, as opposed to the interested nature of the pleasure associated to judgements of the agreeable. For Kant the claim to universal agreement that mere reflective judgement produces when we judge an object to be beautiful hinges quite crucially on the assumption that our pleasure is disinterested. For if we take our pleasure not to be determined by contingent circumstances which distinguish us from other subjects, then we can be entitled to "require a similar liking from everyone".[57] Another way to understand the distinctiveness of disinterested pleasure is to note our feeling is given by the mere structure of our cognitive apparatus which we take to be shared by all cognitive agents. Thus, "since I am entitled to demand that everyone share my capacity for empirical conceptualization, I am also entitled to demand agreement for a feeling which rests on the exercise of that capacity."[58] Instead, pleasure related to judgements of the agreeable like *This Canary wine is nice*, pleasure is not disinterested, which for Kant means that it only has private validity.[59] Sensuous gratification as the one felt in eating a tasty cake or drinking a nice wine is bound up with the contingent state the sentient subject is in. The involvement of appetitive states like desire in gustatory judgements like *This is tasty* binds the validity of this judgement to the sensations undergone by he who judges. In the next section, we will offer arguments to unlatch ourselves from Kant's requirement of disinterestedness.

4.1.3 Reflective judgement beyond Kant

We want to get reflective judgement beyond Kant, so that it also reaches judgements like *This cake is tasty* and, more generally, judgements which have a feeling as a basis, as when we say *This suitcase is heavy* after a straining attempt to lift

[55]Cf., McGonigal [2006], p. 331.
[56]But see Hopkins [2001] for discussion.
[57]Kant [1790], §6.
[58]Ginsborg [2006a], p. 4.
[59]Cf., Kant [1790], §9.

our luggage. First, we argue that Kant's dismissal of the normativity of judgements of the agreeable[60] is linguistically unmotivated. Then, we discuss the role of disinterestedness in Kant's conception of pleasure, to see that a judgement which is not disinterested in that sense may nonetheless make a claim to its own appropriateness.

For Kant taste judgements like *This is beautiful* can claim universal validity by virtue of the exercise of reflective judgement, but judgements of the agreeable like *This cake is tasty* cannot because pleasure in the agreeable is essentially related to the production of a desire. In a sense, as we said, Kant claims that an unrestricted judgement like *This cake is tasty* always reduces to a qualified judgement like *This cake is tasty to me*. The kind of agreement that can at most be claimed by a judgement of the agreeable relates to the authority exercised by someone who develops a critical position to lay down practical rules concerning how to please every guest at a dinner, for instance. In this sense, we call this person someone who has taste, but her judgement is merely general and not universal.[61]

However, the initial phenomena we laid down in chapter 2 speak against the cleavage that Kant argues for. Kant's dismissal of the normativity of judgements of the agreeable predicts that disagreements about gustatory matters are sheer nonsense, for a judgement like Alf's in example (1) does not easily license a denial if it is equivalent to *This cake is tasty to me*.

(1) Alf: This cake is tasty. = This cake is tasty to me.
Bea: No, it's not.

If denials as those in faultless disagreements are licensed, as everything seems to indicate, then judgements of the agreeable in unrestricted form should be normative as well.[62] Moreover, if Bea's response would mean *This cake is not tasty to you*, then Bea's denial here rejects Alf's expression of his personal preference, possibly on grounds of previously observed behaviour, it does not thereby commit Bea to the claim *This cake is not tasty*. But it would be rather strange if an eavesdropper of this conversation, Carl, would now offer Bea a piece of cake. Her denial is not just a rebuttal of Alf's claim, but a statement of her own stance.

If one follows Kant in making it essential to the meaning of adjectives like *tasty* that they have mere "private validity", then in becomes difficult to explain what the difference is between restricted and unrestricted judgements. Besides, if one makes it essential to the meaning of adjectives like *beautiful* that they make a claim to the agreement of others, independently of any structure in which it

[60] Our own doubts were inspired by Genette [1997].

[61] Cf., Kant [1790], §7. Hers "is a judgment in respect of sociability so far as resting on empirical rules."

[62] Semanticists and philosophers who write about faultless disagreements all seem to agree in thinking that denials as those in taste disagreements are licensed. Analyses of such disputes differ, as we have seen in chapter 3.

is embedded, then it becomes hard to explain how it is possible that restricted judgements involving such adjectives appear in actual use and present no challenge for the competent speaker.[63] Additionally, Kant's idea that the only claim to the agreement of others that a judgement of the agreeable can make is a general one, resting on empirical rules concerning social conduct, would imply that a claim as *This is tasty but I don't find it tasty* actually expresses something like *People find this tasty but I don't find it tasty.* But this latter rendering makes the contradiction that we see in the first formulation disappear.

Now, besides the inadequacy of Kant's characterisation of judgements of the agreeable as predictions of actual linguistic use, we wish to dispute the role of Kant's disinterestedness in pleasure. First off, note that various commentators[64] have argued against Kant's idea that taste judgements must be disinterested. The disinterested delight that Kant thought was distinctive of taste judgements like *This is beautiful*, they argue, is not always present.[65] There is very often a clear effort in preserving objects which are considered beautiful, like works of art or landscapes,[66] and beautiful objects often lead to a curious attitude, an intellectual attention is raised.[67]

Note as well that Kant's idea that judgements of the agreeable are intrinsically related to the existence or production of desire has also been challenged. The case of 'sated pleasure' illustrates a situation where Kant would yield the wrong prediction.[68] Let us illustrate this with an example:

(2) Alf: The cake is tasty.
Bea: So do you want some more?
Alf: Oh, thanks but I'm full now!

Should we take Alf to have been insincere, or even wrong? It seems that Alf may well stop eating if he is full and not be charged with being dishonest. Nor should he be expected to judge only things that he desires prior to producing the judgement of the agreeable. It seems capricious to demand that a desire should pre-exist in order for someone to judge something to be tasty. Even though sometimes "Hunger is the best sauce",[69] meaning that one may experience delight when eating something fulfills a crave or after food deprivation, a gustatory judgement may well be made when treating oneself, or upon a spontaneous and unforeseen occasion. This, we think, suggests that desire is not intrinsic to judgements of

[63] Granted, Kant could reply to that the speaker is using the word *beautiful*, but actually expressing the mental concept of the agreeable, but that would be a different discussion.

[64] Crawford [1974], Zangwill [1995].

[65] Interpreters have also argued that Kant claims that taste judgements cannot be based on interest, although they may occasionally raise interest. Cf., Allison [2001], pp. 95-96.

[66] Crawford [1974], p. 53.

[67] Cf., Kant [1790], §§41-42.

[68] Cf., Zangwill [1995].

[69] Kant [1790], §49.

the agreeable.

To see that gustatory judgements are not merely related to sensations of physical (dis)pleasure, one should consider how food appreciation relies as well on our capacity for empirical conceptualisation. This is not to claim that empirical concepts are applied when we judge something to be tasty, but rather to see that our cognitive abilities and not merely our (physical) hedonic feelings are involved in gustatory experience. Think for instance of the expert categorisation of a wine, coffee, or cheese expert. Gustatory experience may lead to complex empirical categorisations, as in the case of a professional expert who classifies coffee by its bitterness or astringency, or cheese by its creaminess or aging. The expert categorises empirically and aesthetically using her senses. When she classifies the coffee concerning a property such as astringency or ageing, she relies on the same kind of experience on the basis of which she may judge a coffee to be tasty or a cheese to be bland. But in a judgement like *This is tasty*, as in the case of beauty, the particular is not subsumed under specific empirical properties. The judgement provides no specific information concerning the object, besides a certain category requirement. In saying *This is tasty*, unlike when we say *I find this tasty*, we make a claim to the intersubjective validity of our affective response which relies on the same abilities that allow us to make cognitive judgements, and which are independent from the pre-existence or the production of desire.

We try to generalise the notion of reflective judgement so that we can see it involved in aesthetic[70] judgements featuring gradable adjectives like *tasty, heavy, painful*, etc. We argue here that all aesthetic judgements are interested in a minimal sense, a sense impregnated with normativity related to our affective responsiveness to, e.g., beauty, tastiness, heat, or pain. So all aesthetic judgements may be seen to be interested in a way that involves the exercise of reflective judgement. Here we consciously move beyond Kant, we do not claim that this view should be imputed to him.

We should closely reconsider the role that our affective responsiveness plays when we judge that something is tasty, nice, or painful, so that we can see that judgements of the agreeable do not refer to a judge's (dis)pleasure, they do not denote their sensations or experiences, but rather make a claim to the appropriateness of an affective response. This claim is further elaborated in chapter 5 and it is the crux of our own take on PPTs. Kant's [1790] can be read as admitting[71] or proposing[72] that the affective response of pleasure in taste judgements is a motivating force that drives our attention and perception forward in a certain direction. We will not discuss here the exegetical question, whether the weaker or the stronger claim is a correct interpretation of Kant. Let us focus on the idea that the affective response that comes with an aesthetic judgement drives

[70] Here we use 'aesthetic' in the Kantian sense, so as judgements related to perception involving the senses.

[71] Aquila [1982], p. 88.

[72] Cf., Tinguely [2013].

us to cognise and act on the world following a particular direction.[73] Even if they are scarce, there are some textual cues in Kant suggesting that the feeling of pleasure associated with judgements of beauty 'animates' the imagination and understanding: "The animation ('Belebung') of both faculties (the imagination and the understanding) ... is the sensation whose universal communicability is postulated by the judgment of taste."[74] Independently of whether this is an (un)controversial interpretation of Kant, our own claim is that in judgements regarding beauty, gustatory taste, pain, heat, effort, etc., our affective response is interested in the minimal sense suggested above: our perceptual experience and our actions are steered by the affective responses associated to our judgements.[75] This notion of affective responsiveness as related to movement or change will be further elaborated in chapter 5.[76]

So when we claim *This is painful, This is tasty, This is hot*, this motivating force of our affective responsiveness is one that we take others ought to share. When we tell someone *This is painful, This is tasty, This is hot*, we expect an appropriate affective response from our interlocutor, independently of whether in fact she experiences a feeling of pleasure, displeasure, pain, heat, etc. Unlike when we say *I find this painful/tasty/heavy*, when we say *This is painful/tasty/heavy* we expect that our interlocutor will avoid the procedure deemed painful, that she will give the tasty cake a try, that she bend her knees when lifting the suitcase, etc. We expect her to react appropriately. Unrestricted aesthetic judgements make a claim to universal agreement precisely because of the normative character of our concernfulness, of this minimal sense in which they involve interest. The presupposition of commonality is not an empirical hypothesis about other's factual responses, but a normative claim about how our fellow agent are expected to react to the object under assessment. Thus, reflective judgement as our ability to take our affective response to be one that others ought to share may be seen as playing a role in aesthetic judgements beyond judgements of beauty.

Now, while the presupposition of commonality may be backed up by the assumption that our interlocutor has cognitive skills as ours, the expectations con-

[73]This idea is supported as well by the editor's fn. 3 to §1, p. 366 of Kant [1790]. There, they say: "Kant explained pleasure as the feeling that expresses a condition that promotes life and its activity, while the feeling of displeasure expresses a hindrance to life or a check to its activity; this conception is presupposed by Kant's conception of the pleasure in the free play of the cognitive faculties".

[74]Kant [1790], §9.

[75]As Tinguely [2013] put it: "affective sensibilities can orient our perceptions which can in turn intensify or refine our responses through a self-reinforcing and self-correcting cognitive-cum-affective 'momentum' (Schwung)."

[76]It is interesting to note that one can find a similar idea in Spinoza, for whom affects are "the affections of the body whereby the body's power of acting is increased or diminished... together with the ideas of these affections" (Ethics, Part III Definition 3). We would be curious to investigate how Kant and Spinoza relate at this point but we obviously cannot do that here.

veyed by *This is painful, This is tasty, This is hot* do not lie on criteria set by empirical concepts: if I touch the hot pan and I burn myself I do not tell to the person next to me *The pan is hot!* because it is at a certain temperature (say, 50 or 60 degrees Celsius), but rather because of my affective response that I take others *ought* to share. There may be an empirical justification for why objects above a certain temperature burn our hands, but this is not the reason why we call something hot when we burn our hand when touching a pan. We take our response (to remove our hand) to be adequate or appropriate, and for this we have no proof or justification. Our burning sensation is not a piece of evidence we can offer to someone else precisely because it is an affective response. The response is not a proof for the judgement but rather an example that is taken to hold good for others as well. A great deal of unrestricted judgements we make using gradable adjectives are aesthetic in this sense, and thus make a claim to intersubjective agreement which is not based on recognising the object under evaluation as falling under a concept or satisfying a criterion. This lack of conceptual or empirical criteria can be seen as the key to the loopholes into which faultless disagreements can lead us. To change someone's taste, one should get to change that person's affective responses, and while this can be predisposed by our arguments and critique of what we eat, touch, or feel, it cannot be achieved without there being a change in our interlocutor's appraisal, her phenomenological stance.

Like in the case of taste judgements, the normative claim of judgements of the agreeable and, more generally, of aesthetic judgements, does not depend on their veridicality for the (in)correctness of a judgement is not determined by a whether the object has certain properties. Their normativity is primitive, in the sense that it does not depend on conformity to an antecedently recognised rule. In this view, the meaningfulness of aesthetic judgements, both taste judgements and judgements of the agreeable, does not hinge on their truth or falsity, but rather on the normativity of our affective responsiveness. More on this will be said in section 4.3, and in chapter 5.

4.1.4 Interim conclusions

We have presented an interpretation and an extension of Kant's solution to the "essential tension" characterising taste judgements and cognitive judgements. What lessons do we draw for an analysis of the meaning of PPTs and other RGAs? What does our investigation contribute beyond what other semanticists have already taken from Kant to analyse PPTs?

We have gone beyond Kant in arguing that any unrestricted judgement based on a feeling also involves the exercise of reflective judgement. Unrestricted judgements involving these adjectives are meaningful by virtue of a presumption of commonality of our affective responses, an expectation which is not predictive but normative.

Surely, not all unrestricted judgements involving gradable adjectives would

work this way, for some are clearly cognitive in the Kantian sense. We may set up a rule by which we judge, e.g., any suitcase weighing less than 23 kg to be allowed without extra payments upon check-in. In such case, our own response to the suitcase is irrelevant: we may not find it heavy, and still it may be too heavy to be accepted at the check-in desk. If we have drawn a line, we have a concept that works as a criterion for correct application of the gradable adjective. Rendered in this way, the claim to others made by unrestricted judgements "applies to all individuals, irrespective of any perceptual deficiencies they may have".[77] In such cases, having such a criterion, disagreements can be (more or less) easily resolved. However, empirical judgements such as these are, in the Kantian reconstruction we have offered, made possible by the reflective principle. Taste judgements lay bare the working of reflective judgement and, as such, are prior to empirical conceptualisation. As long as the kind of affective responses that are at play when making such a judgement are shared, there is not a difference in meaning when you draw a line here and I draw the line there. The picture of evaluativity we drew in chapter 2, subsection 2.2.4, can now be seen through the Kantian lens: reflective judgement is behind the normative claim made by unrestricted judgements featuring either strongly or weakly evaluative adjectives, but in the case of strongly evaluatives *mere* reflection is involved.

Kant's rendering resists extreme absolutism or relativism.[78] Taste judgements are aesthetic but, when formulated as unrestricted claims, they make a claim to the agreement of others, so they cannot be held to only hold for specific individuals, the speaker or whoever. This is precisely Kant's point and worry in distinguishing, on the aesthetic side, taste judgements from judgements of the agreeable, and on the cognitive side, judgements of experience from judgements of perception. Relativism concerning PPTs takes all judgements involving PPTs to be like Kant's judgements of the agreeable, because they do not make a claim to universal agreement but rather make a restricted claim about specific judges. In any case, this form of relativism makes no room for the claim of intersubjective agreement that Kant claimed to be essential for judgements of beauty.[79]

[77] Ginsborg [1990a], fn. 6.

[78] One can actually see Kant as responding to a rationalist tradition defending the objectivity goodness or perfection of things (notably supported by Leibniz and Baumgarten) vs. an empiricist view seeing aesthetic judgement as expressing an individual sentiment (Shaftesbury, Burke and to some extent Hume). (Cf., Ginsborg [2011b]) To some extent, one can associate absolutism concerning the semantics of PPTs with rationalism, and relativism for PPTs with extreme forms of empiricism. However, the agendas of people like Leibniz or Hume in these matters was not directed at showing if and how the truth of a taste judgement we utter is absolute or relative. In fact, Hume [1757] rejects altogether the idea that taste judgements may be true or false (see our remarks in chapter 3, fn. 21). So one should be cautious with any association one suggests.

[79] Stephenson [2007] has a pragmatic story about normativity: to assert *This is tasty*, a speaker only needs to believe that *This is tasty* is true for her. But if this judgement is added to the common ground of the conversation, then the judgement should be true for all

The contextualist account of PPTs takes it that in a specific conversation, we may disagree about the actual comparison class. In case different criteria, e.g., different standards and/or comparison classes are used, the discussion can move to that area: whether criteria are (in)compatible, motivated, trusted, etc. A standard is no more and no less than a criterion or conceptual determination of the application of the adjective. Lines are drawn only in specific circumstances, but in taste judgements and, more generally, our unrestricted judgments we do not compare our current pleasure or feeling with past experiences. Of course, a comparative judgement would do this, but comparison is not constitutive of the positive judgement in the story we have told. The specific turn taken by the metalinguistic contextualist[80] is to argue that gradable adjectives and, in particular, PPTs can also be used to change the prevailing denotational borderline, the linguistic convention which settles what counts as, e.g., tasty. But, we have argued, correctness and incorrectness that is most relevant to understand the aboutness of taste judgements does not first and foremost concern language, but how we act and expect others to act.[81]

The nuanced genericity-based account of PPTs makes room for general judgements imputing a judgement to a group of people. First-person based genericity seems to reflect the way in which reflective judgement makes the normativity of taste judgements possible.[82] However, we make a generic statement in which from a first-personal subjective experience that we consider normal, we generalise to quantify over over relevant and normal individuals in the domain. However, this implies that if someone (one or many) whom we consider normal does not like the cake, then we should consider that the judgement is false. But this means that to take our experience to be normal and therefore to be one that normal people share is not the same as taking our experience to be one that normal people ought to share. The point is that the implicit generic quantification is still a generalisation which can be falsified, not a normative claim.

Kant's cognitive vs. aesthetic judgement is an epistemological categorisation. Does this mean that for Kant aesthetic judgements express non-cognitive states, as the expressivist has it? In a way, we have already addressed this question and given a negative answer to it in the discussion about the intentionality of pleasure at the end of subsection 4.1.2. Still, one could say, the expressivist wants

conversational participants. But in her picture, because it is relativist, a judgement may be true for me but not for you, whereas for Kant truth makes a claim to universal agreement by itself: if a judgement is true, it is true *simpliciter*.

[80]Gutzmann [2014]'s expressivism adds a use-conditional layer that can be seen as a variant of the metalinguistic view, as we have argued in chapter 3.

[81]So here we disagree with Umbach's interpretation of the moral left by Kant's view on taste, namely, that "an analysis of taste judgments (in the sense of Kant) has to refer to normativity with respect to language use". Umbach [2014], p. 9.

[82]The notion of common sense [sensus communis] and contrasting interpretations about the exact role it plays in Kant [1790] (see esp. §§20-22).

to include the "commending function" of taste judgements,[83] and one could think that the claim to the agreement of others that Kant insists aesthetic judgements have is another way of defending that same commending function. After all, kosher expressivism places the subject transcendent character in the pragmatic, hence defeasible module of interpretation, and Kant is explicitly referred to as a source of his claim that invites others to have a similar response to ours with regard to the object under evaluation.[84] However, this invitation has an optional character which does not fit well the normative claim of taste judgements sketched in this section. We take it that others ought to share our affective responses, we prescribe and not merely invite others to react as we do. And in any case, for Kant cognitive judgements would also be commending, because they are also subject-transcendent, they also invite others to regard objects as we regard them.

Kant claims that taste judgements are aesthetic because their determining *ground*, disinterested delight, cannot be other than subjective. If delight is such determining ground, then a taste judgement may be seen as positing that beauty or tastiness inhere in the object's substance.[85] This is problematic because to claim that aesthetic judgements are *grounded* on a privately accessible state renders such grounds intersubjectively inaccessible by assumption, so the claim to the agreement of others would be impossible. To get this clear, we should closely reconsider the relation between the feeling of pleasure and our affective responses, examine the notion of justification holding between judgements and feelings, and be more precise about how subjectivity presupposes that there is already some intersubjective agreement. For this, in the section 4.2, we draw upon Wittgenstein's social conception of the self, and his characterisation of certainties and avowals.

4.2 Certainty, subjectivity, intersubjectivity

Unrestricted judgements, we have argued, work by taking others ought to share our affective responsiveness. If this affective responsiveness is an inner state or process, then we have not made one step further. An inner state or process gives room for privileged access and underscored authority of the first person,

[83] Cf., Hare [1952].

[84] Part of Buekens [2011]'s reconstruction suggests that for Kant, an object or situation judged tasty causes pleasure, which is the evidential ground for the judgement *This is beautiful.* For a discussion about the relation among the object, the judgement, and pleasure, see our discussion in subsection 4.1.1. Concerning the claim that pleasure is the evidential ground for a judgement of beauty, this seems to be an unfortunate rendering of Kant's idea that judgements of beauty are not objective as cognitive judgements, but rather make a claim to intersubjective validity that does not impute an objective property to the object, which implies that judgements of beauty are not based on evidence. However, a detailed assessment of Buekens' understanding of Kant is beyond the space and purposes of our discussion.

[85] Cf., Watkins [2005].

while we claim that unrestricted judgements make claims concerning the affective responsiveness not only of the speaker or a specific judge, but of any qualified interlocutor. To secure the meaningfulness of evaluative judgements, unrestricted and restricted, it is not enough to claim that our reactions ought to be shared: our reactions ought to be intersubjectively accessible.[86]

This last point is made by Wittgenstein in his late work[87] dealing with questions related to the philosophy of psychology, to epistemology and, more generally, introducing a social conception of subjectivity. We will deploy his discussion of avowals and certainties to couch a more adequate view on the meaning of unrestricted and restricted judgements. In subsection 4.2.1 we give a condensed reconstruction of Witgenstein's view avowals, i.e., first-person present tense ascriptions of bodily or psychological states like *I am in pain* or *I am frightened*, and discuss the extent to which restricted judgements are similar to these.[88] But unrestricted judgements like *This is tasty* are not, at least from a superficial point of view, ascriptions of psychological states to others or to ourselves. We shall show that they share a number of features with certainties like Moore's claim *This is a hand*, reconstructed in subsection 4.2.2, to get a better grip on their meaning. Unrestricted judgements owe some of their specific traits to how the inner relates to the outer, and to how the inner hinges on what we take as a given even before we can discuss about what is true or false. We will see that what is subjective about PPTs and related adjectives has more to do with the phenomenology of embodiment than with judge-dependence. The subjectivity of PPTs is better understood when seen as being constitutively related to the outer, through our embodied expressions and reactions given in gestures and characteristic behaviour. We try to draw these lessons explicitly in subsection 4.2.3. When we conclude this chapter in section 4.3, we try to bring forward the connection we see between reflective judgement and certainty: the former lays down the conditions of possibility of normativity without rules, the latter is an eloquent example of how this sort of normativity works.

[86]Bax [2011] distinguishes two main discussions concerning subjectivity — an ordinary understanding according to which subjectivity is a name for relativity of viewpoints, and a philosophical understanding of this term referring "to a Cartesian-style ego, to the *ego cogito*, to thinking substance whose inhabiting a (social) world and a body accordingly do not pertain to its essence." (p. 2) Here we bring these two senses together because, it seems to us, the recent literature in semantics has tried to explain the apparent relativity of viewpoints that seems to be inherently associated with PPTs by resorting to an *ego cogito* which determines either the meaning of certain adjectives, or the worldly circumstances they describe.

[87]Wittgenstein [1969, 1980a], and other works we will be referring to below.

[88]The term *avowal* comes into philosophy from the hands of Ryle. It relates to Wittgenstein's work as being a witness for how psychological verbs and linguistic expression work. Note that some authors (e.g., Bar-On and Long [2001]) claim that avowals have a special presumption of truth. This is not exactly in line with Wittgenstein's own view, as we shall see here.

4.2.1 The outer as a locus of the inner

First-person ascriptions of ongoing mental or bodily states, also known in the literature as avowals, have bolstered a considerable thread of positions and debates on subjectivity in philosophy of mind. It is hard to give a general definition of avowals,[89] given that it is a theoretical notion and as such it gives rise to different conceptions.[90] We do not wish to offer here a precise demarcation of all and only avowals, but rather point out that restricted evaluative judgements are very much akin to first-person statements like *I am in pain* and how they stand with respect to the third person case. Avowals give rise to discussions concerning first-person epistemic authority and privilege: are they resistant to correction because the speaker has privileged access to the evidence on which such judgements are grounded? Are avowals based on evidence at all? Positions differ, polarised from a Cartesian introspective cum privileged epistemic access, to simple expressivists arguing that avowals do not specify cognitive content and rather express an emotion like a laughter or a sorrow, to sophisticated neo-expressivist views defending immunity to error as presumptive truth but avoiding a Cartesian introspective view of our mental lives.[91] Here we will not review all stances in the debates but rather focus on some of Wittgenstein's considerations in order to explore the relation between restricted judgements and avowals.[92]

Avowals are distinctive self-attributions in that they seem to enjoy an extremely secure status, they are resilient to correction,[93] but unlike a priori judgements, their claims concern contingent matters, like someone's pain, itch or anger. Sincerity can be challenged, but if sincerity is conceded, the accuracy of the self-ascription cannot be disputed. But this apparent *immunity to error*, the technical label coined in the literature[94] on avowals, is characteristic of the first-person perspective: "while we sometimes fail to see what someone else is thinking or feeling, there can normally be no doubt as to the psychological state we ourselves are in."[95] First- vs. third-person asymmetries have fed the discussion about whether and how one can get to know anything beyond the Cartesian cogito, how can we get to know anything about others who, like us, have intentional states of all sorts and flavours, and how can we get a hold of them as persons rather than as

[89] As it is oft noticed, strict definitions such as these are both too exclusive, because some self-ascriptions of occurrent mental states do not make explicit reference to the first person like *It hurts*.

[90] See Ryle [1949], Anscombe [1957], Evans [1982], Shoemaker [1994], Moran [1997], Bar-On [2004], etc.

[91] Look at Ryle [1949], Evans [1982], Wright [1998], etc.

[92] Nor will we take a position with respect to whether Wittgenstein's own view can be interpreted as supporting a form of expressivism. Such exegetical matters lie beyond our own purposes. Compare for instance the positions of Hacker [1986], and Moyal-Sharrock [2000].

[93] Nice expression from Bar-On and Long [2001].

[94] From Shoemaker [1968].

[95] Bax [2011], p. 40.

clusters of natural phenomena, like a thunderstorm or another event in nature. As we noted in ch. 2, restricted judgements like *I find this cake tasty* can very rarely be sensibly contested by an interlocutor with a denial of the form *No, you don't.*[96] This makes us think that restricted judgements are akin to avowals.

Although remarks concerning subjectivity can be found in Wittgenstein's early writings,[97] here we focus on his late philosophy of psychology.[98] Psychological statements concerning memory, pain or fear form a witness case of competing accounts of linguistic meaning and of subjectivity from which Wittgenstein steps away.[99] In particular, they provide a limit case for the normative requirements of natural language, for they bring out most clearly how experiences turn out to be completely irrelevant when one conceives of self-ascriptions as descriptions which are bound to be true because they stem from infallible introspection. The resilience to correction of avowals is related to the fact that observation normally plays no role in first-person ascriptions of ongoing states, rather than to a lofty view on a privately delimited and given realm. Avowals signal an embodied experience which is associated with characteristic gestures and patterns of behaviour, rather than describe an inner process only accessible via introspection. There are exceptional cases where Alf could be mistaken about her own pain, but this is not because Alf has infallible access to what pain designates. This signaling can, of course, be informative to others about Alf's ongoing states. However, the signaling is not done upon the verification of Alf's own experience or behaviour fitting a descriptive range of the self-ascription Alf utter's.

Does Wittgenstein see avowals as being immune to error? Once more, this is an exegetical question that we do not need to fully address, given our limited purposes. All we would like to say here is that even though Wittgenstein distinguished[100] uses of I-as-subject (*I see so and so, I hear so and so, I try to lift my arm, I think it will rain, I have a toothache*) vs. I-as-object (*My arm is broken, I have grown six inches, I have a bump on my forehead, The wind blows my hair about*), and pointed out that only in the latter case it makes sense to ask whether I have made a mistake concerning the identity of the one whose arm is broken or who has grown six inches, it would be a bit too swift to suggest that for Wittgenstein all self-ascriptions of ongoing states involve a use of I-as-subject.[101]

[96] We say "very rarely" because one can think of scenarios where such denials could occur. Think, for instance, of patients suffering from frontotemporal dementia (see fn. 95 in chapter 2.

[97] See Wittgenstein [1922], §§5.631, 5.632, 5.641, Wittgenstein [1961], 2.8.16, 2.9.16.

[98] To fragments from Wittgenstein [1964, 1958b, 1980a, 1958a, 1982/1992]. Our reading of these works has been influenced by sources other than those explicitly reported below, e.g., Overgaard [2005], Schulte [1993], Glock [1996], Finkelstein [2010].

[99] This stepping away can actually be seen, as Ter Hark [1991] argues, as a transition, from Wittgenstein's middle period to his late years. Different aspects of the issue around the formation of psychological concepts, but also slightly different positions, are defended in different works, from 1929 to 1951.

[100] In Wittgenstein [1958b], in the *Blue Book*.

[101] This is part of what is at issue in the Shoemaker-Evans discussion. The claim that immunity

Indeed, if no identification of the subject is required in order to utter *I have a toothache*, then referring success is guaranteed because no actual reference is involved. However, it requires lengthy, not always convincing arguments to claim that Wittgenstein denied the referentiality of the pronoun 'I', let alone to claim that he thereby characterised avowals.

Wittgenstein notes that resilience is peculiar to first-person ascription in present tense: when one considers statements like *She is in pain* or *I was afraid*, mistakes and errors are surely possible: someone may pretend she is in pain, my memory about an experience's being frightening might be simply wrong, we may be mixing up memories about two different occasions. These asymmetries are examined in various passages, and accepted rather than neglected or explained away[102] as an inherent feature of how psychological concepts are formed, learnt, and applied.[103] Nevertheless, the asymmetry is constructed in such a way that, in a sense, mistakes are excluded not only in the first-person case but, perhaps surprisingly, also in the third-person case. Judgements concerning other people's states are partly constituted by what Wittgenstein calls "Einstellung zur Seele": they involve observation but they are not purely observational, as when we verify that a thermometer marks 20 degrees. What he called "characteristic expressions"[104] are gestures, facial expressions, and patterns of behaviour by which we make sense of our fellow human being's ongoings.[105] When we see someone weeping, we do not infer her sadness, we see it.[106] The sort of evidence we have in this case is, as Wittgenstein puts it, imponderable:[107] gestures and patterns of behaviour that make up for a third-person ascription of an ongoing state are subtle. We may make mistakes, given that imponderable evidence is, as such, resistant to systematisation and to full predictability. If we cannot speak with

to error through misidentification is present for all avowals is made by e.g., Bar-On, "inspired by Wittgenstein". Fair enough, she does not claim this claim should be attributed to Wittgenstein himself.

[102]If one looks at earlier work by Wittgenstein, one may find a different view about these asymmetries. Ter Hark [1991] argues that in his middle period, Wittgenstein endorses a form of behaviourism which turns statements about others' mental states into a hypothesis, as much as one's own state can only be hypothesised by others, which ends up removing rather than accommodating the asymmetries so characteristic of avowals. In his later philosophy, Wittgenstein makes room for the asymmetries and explicitly rejects behaviourism.

[103]This acceptance of the asymmetries has been glossed by what Wright calls a default view, an allegedly Wittgensteinean view which takes asymmetry to "belong primitively to the 'grammar' of the language-game of ordinary psychology." (Wright [1998], pp. 41-43) Like expressivism, this view denies that an avowal can represent a genuine "cognitive achievement, based on cognitive privilege", but unlike expressivism it claims that truth-conditions of avowals can and should be specified by taking first-person avowals to be by default true. We neither support this account, nor do we want to argue here whether this is a tenable interpretation of Wittgenstein's views.

[104]Cf., Wittgenstein [1980a] i, § 927.

[105]Wittgenstein [1980a] II, §148; Wittgenstein [1967], § 488.

[106]"In general I do not surmise fear in him–I see it. I do not feel that I am deducing the probable existence of something inside from something outside." Wittgenstein [1980a] II, §170.

[107]Wittgenstein [1958a] II, p. xi.

total security about other people's ongoings, this is not because our epistemic access to someone else's mind is somehow inferior. Third-person ascriptions are not mere conjectures. I may be wrong about the other's ongoing state, not because his inner life is hidden from me, but rather because what we immediately see of someone else's condition is entrenched, in a delicate way, with how that person acts, what she shows, and what she knows.

Of course, pretense is possible. The weeping person might be faking it to make us think she is sad. But this requires us to learn a different game, one in which our experiences and their characteristic expressions are dissociated. However this does not mean that genuine expression is a sum of specific behaviour plus something else, something inner. If I think a person's fear is genuine and someone else does not, there is nothing more I can do other than say and show what I have heard and seen and know about her.[108] To think of a genuine expression as a sum of specific behaviour plus something else, something inner, turns that inner addendum into the specific point at which truth and truthfulness collapse — the Cartesian dead-end. To think of genuine expression as mere gestures and behaviour, no difference is made between mimic and truth — the behaviouristic dead-end.[109]

Here we come to the point we want to make, built on the brief summary of a Wittgensteinean view on avowals. We want to note that, to some extent, restricted judgements like *I find this tasty* or *She finds this heavy* work like avowals. Please note that we do not make the more straightforward claim, i.e., that first-person restricted judgements *are* avowals because we note a number of features in which avowals and first-person restricted judgements seem to differ. Here we limit ourselves to notice some of the points of contact and of contrast. There are intended to help us substantiate the idea that subjectivity in restricted judgements concerns an entrenchment of inner and outer, rather than describe an inner process or state, or a set of physical dispositions or actions.

We want to note three points of similarity between avowals and restricted judgements. To begin with, as already noted in chapter 2, subsection 2.3.2, first-person restricted judgements in present tense do not leave much room for correction, certainly much less than third-person ascriptions:

(3) a. A: I find this cake tasty.
B: No, you don't.
b. A: She finds this suitcase heavy.
B: No, she doesn't.

Third-person evaluative judgements may be based on what someone says or on the observation of gestures and behaviour. We see someone's physical effort when carrying a suitcase, we conclude that she finds it heavy. We see someone's relish

[108] Wittgenstein [1958a] II, pp. xi.
[109] Cf., Wittgenstein [1968], pp. 302-303.

in savouring something, we conclude that she finds it tasty. Third-person evaluative judgements like (3-b) may be uttered echoing someone's linguistic behaviour, what she has said in the past, but also relying on her non-linguistic, characteristic expressions. Meanwhile, a first-person restricted judgement is normally not uttered on the basis of an observation of our own behaviour or gestures. Suppose you are lifting weights at the gym in front of a mirror: do you need to look in front of you to say whether the weight you are carrying is heavy? In normal circumstances, you just feel the effort you make as you lift it. Likewise, you do not say *I find this chocolate tasty* upon observing your gestures in the mirror when eating a piece. Delight is normally felt, not inferred or concluded.

Our second point is that, like avowals, first-person restricted judgements do not leave much room for correction errors concerning the identity of agent referred to in the matrix subject. In both cases, misidentifications are hardly imaginable in the first-person case (a-c), whereas this is surely possible for the third person case (b-d).

(4) a. A: I have a migraine.
B: No, it's not you who has a migraine!
b. A: She has a migraine.
B: No, it's not her who has a migraine, it's him!
c. A: I find this lemonpie tasty.
B: No, it's not you who finds this lemonpie tasty!
d. A: She finds this lemonpie tasty.
B: No, it's not her who finds this lemonpie tasty, it's him!

In most cases, it does not make sense to wonder: someone has a migraine but is it me? Or someone finds lemonpie tasty but is it me?

Our third point is that like avowals, first-person restricted judgements leave some room for empirical mistakes. I may be wrong about whether I have a headache or a migraine, if I do not know a migraine is defined as a neurological disorder. What I cannot be wrong about is sbout my experience of pain. Similarly, a restricted judgment express a subject's relation to an object under assessment, and we may be wrong about how we identify this object, e.g., if Alf says *I find this lemonpie tasty.* and someone corrects him indicating that what he has tried is not a lemonpie but a lemon cheesecake. Still, an empirical mistake does not amount to a mistake regarding the appreciation of a subject: we are not wrong about our experienced pain, or our delight and relish. To make this point sharper, consider again the Müller-Lyer arrows. When I realise that the two segments are equally long, I may still say *I find the segment in the image above longer than the one in the image below.*

Why not just say that first-person restricted judgements are avowals? We mention here a few points of contrast. First of all, restricted judgements may express an assessment upon a specific gustatory experience, as in example (5-a),

or they may generalise the appreciation of a sort of item, as in example (5-b):

(5) a. A: I find this cake tasty.
b. A: I find chocolate cake tasty.

So restricted judgements do not necessarily report on an ongoing state. A judgement concerning repeated exposure or a habit covers a collection of past states.

Second, we count as a restricted judgement something like *I find it expensive!*, given that *expensive* is an RGA. Concerning price, interest or suitability, it may be harder to speak of characteristic expressions as those related to pain, fear or surprise. Can we say of a third person that she finds something, e.g., convenient or appropriate if we have not her make an explicit verbalisation which makes this known? These are hard questions, partly because the boundaries of what is a characteristic expression are not really sharp. One could try to argue that a characteristic expression of finding something expensive is not to buy that thing, but of course this is a rather refined type of reaction when we compare it to a reaction of pain or of disgust, which seem to be more animal, more primitive. Perhaps more importantly, distinguishing "negative expressions" can be very hard. Absence of action of a certain sort does not easily lead to a pointer of the sort of action that is missing. For example, we may see Alf not buying a pair of shoes, and thereby conclude that he finds them expensive, but perhaps he is refraining from buying them now because he wants the fancier, though more expensive model. In the more standard case of pain, we can see a characteristic expression of pain but can we see an expression of endurance of pain? It seems that to see endurance to pain as an expression, we should already know that an expression of pain is suppressed.

These may be seen as questions about whether Wittgenstein considered that avowal always has an associated characteristic expression.[110] However, he raises doubts himself about this, for not every psychological concept has characteristic expressions, e.g., numbness, tingling, sensation of heat.[111] In any case, independently of this exegetic point, it is worth noting that even what counts as a verbal report of someone's finding something interesting or expensive is not such a straightforward matter. Does a person need to actually say, in these words, *I find this expensive* for us to say that she finds this expensive? Obviously, this is too much to ask. An interjection like *My goodness!*, or an expression like *I can't believe it!*, or even something like *Are they crazy?* could, in normal circumstances, be the basis on which we say that someone found something expensive. This suggests that just as one may have difficulty in naming the characteristic behaviour and gestures associated to finding something, e.g., expensive, it may be likewise difficult to list specific verbal expressions that suffice to say that someone finds

[110] This relates to the question whether self-ascriptions of epistemic states like *believe, know, surmise* count as avowals.

[111] Wittgenstein [1980a] II, §63

something expensive. And still, we do say of people that they find things expensive, interesting or suitable. So what lesson should one draw? It may be hard to make third-person ascriptions of ongoing states like *She is in pain*, as it may be hard to make third-person restricted judgements like *She finds this expensive*, although it is clear that finding something painful or someone attractive may have more iconic characteristic expressions than finding something interesting or expensive.

In this discussion we have shown that restricted judgements resemble avowals, to some extent. In subsection 4.2.3, we will discuss what lessons we think this yields for a semantics dealing with the subjectivity of PPTs and other RGAs.

In our Kantian detour in section 4.1, we argued that *un*restricted judgements go beyond the mere expression of an individual's bodily or psychological ongoings. They claim intersubjective agreement like avowals because they are ungrounded, in the sense that they are not judgements made on the basis of evidence we gather. But they do not merely express the psychological undergoings of an individual, so our perusal of avowals seems not to give us tools to better understand this case. Or so it seems. Actually, Wittgenstein's view on avowals is closely related to his characterisation of what he calls certainties. In the next subsection, we present a few of the central features of certainties, to then put them in relation to unrestricted judgements.

4.2.2 Certainties and agreement in judgement

In his discussion against Moore's alleged defeat of skepticism in [1969] (referred to as OC henceforth),[112] Wittgenstein discusses statements he often refers to as certainties,[113] though not identifying them as a syntactically or a semantically unique category of sentences. Certainties are unstriking judgements[114] like Moore's *This is a hand*,[115] general claims like *Everyone has ancestors*, or identity statements

[112]This work gathers a bundle of fragments coming from the Nachlass, edited under the criterion that it allegedly constitutes a discussion of the topic of the topic of certainty. (See Wittgenstein [1969], Preface. See Moyal-Sharrock [2004] for a critical discussion). Some related discussions appear in Wittgenstein [1958a] and Wittgenstein [1958b].

[113]This is mostly a label issued in the literature concerning Wittgenstein's late work. One should not think that in Wittgenstein [1969] something like a neat definition. Certainties should not be seen as a unique, clear cut category of sentences. (Cf., Wittgenstein [1969], §§52, 318-320) One and the same sentence may fluctuate between different uses, some of which express certainties and some of which do not. So a certainty is not a specific verbal locution, a designated set of propositions.

[114]Moyal-Sharrock [2013] insists, against Coliva [2010], on calling certainties 'hinges' rather than 'judgements' because of her fierce rejection of these being truth-evaluable. Further discussion appears below.

[115]Many statements concerning one's body appear in a racconto of certainties (see examples concerning feet and head), where proprioception does only sometimes play a distinctive role; that inside a skull there's a brain and not sawdust is a certainty but not because we can have a

like *My name is MIC*. Against Moore's use of the claim *This is a hand* as an immediate and uncontrovertible defeat of skepticism, Wittgenstein argues that certainties fail as responses to skepticism basically because they does not voice pieces of knowledge, something we have evidence for, something we are justified in believing and in taking as true. We do not delve into how certainties may disarm skeptical arguments,[116] but instead focus on features of certainties which we will then transpose and discuss with respect to unrestricted judgements like *This cake is tasty*.

What is special about certainties is that doubt is normally out of the question. Think for instance of whether you are sitting or standing, whether you have ten toes or whether the earth has existed for more than five minutes. When uttered, these statements do not express opinions which we hold by virtue of having gathered and verified a number of observations. Though one can regard this as the most explicit locus of Wittgenstein's (late) epistemology, these passages are sometimes closely related to passages in other works[117] extending to philosophy of mind, to the semantics of psychological concepts, and to the powerful but general idea of a language game and the role it plays in his philosophy of language.[118] If one reads OC as a strongly epistemological oeuvre, one may see it as an inversion of Cartesianism: in his *Meditations*, Descartes argues that knowledge is possible if doubt is excluded. In OC, knowledge is seen to be possible if and only if doubt is possible.[119] The notion of a certainty is central to his "critique of human knowledge"[120] and it stands in the backbone of his ideas concerning the social formation of subjectivity.[121] Knowledge and doubt are possible within the framework that certainties form. But Wittgenstein does not endorse Cartesian foundationalism. Certainties are contingent statements, not tautologies. They form a background of assumptions that, when linguistically formulated, escapes the logical vs. empirical status. They are themselves unjustified, but not necessarily or eternally true, like a tautology or another sort of foundationalist bedrock. To a great extent, they are community-dependent, and they can change though not easily or by means of a simply discursive argument. A certainty resides in shared actions and reactions of a community, not in propositions that are undoubtedly true.[122] They manifest our attitude towards our environment, natural and social, as a by-and-large uniform whole, where exceptions are what they are because they are rare and because they break an otherwise stable pattern.[123]

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conscious experience of there being one rather than the other, as when one feels whether one's mouth is empty or full.

[116] See Moyal-Sharrock [2004], ch. 8.

[117] Cf., Wittgenstein [1958a, 1980a, 1967].

[118] Cf., Van Gennip [2003].

[119] Cf., Stein [1997], ch.6.

[120] Here we are relying on Bax [2013].

[121] Here again, Bax [2013].

[122] Cf., Wittgenstein [1969], §204

[123] Cf., Wittgenstein [1958a], §§472, 474.

Certainties are peculiar in their discursive function: in normal circumstances, they are informatively idle because when voiced they state the obvious, that which we take for granted, we all agree on. As an underlying background we assume, certainties are seldom voiced in conversation. But a certainty can be verbally voiced, like Moore does with his famous *This is a hand*.[124] A sentence voicing a certainty may thus fluctuate between informative and non-informative uses, between a description of facts and a statement of a norm.[125]

Wittgenstein points out that certainties are *ungrounded*,[126] in the sense that they do not rest on justifications. Grounded statements are justified by evidence, by publicly accessible information,[127] but justifications of this kind come to an end.[128] Certainties are not reached via maximal or direct evidential support, or thanks to an infallible or privileged form of justification. They constitute a complex, modifiable framework of beliefs and patterns of behaviour which is not embraced by means of a process of verification. When this happens, we reach an ungrounded way of acting.[129] They are embraced without reasons; reasons are needed to withhold or relinquish a certainty, not to live by it.

Where grounds lack, mistakes and doubt are logically excluded.[130] Because certainties are ungrounded, doubting them strikes us as inadequate or absurd.[131] an expression of a certainty like *This is a hand* cannot be wrong because we do not say this on the basis of evidence. Mistakes can be made only when we are able to provide a correction, yet what correction could we give to convince someone who doubts that what she has at the end of her arms are her hands?[132] Disagreement amounts to folly.[133]

Change in a framework of certainties is possible but not on the basis of an

[124]Seldom voicing has been interpreted as (a form of) ineffability. "[Certainties] cannot be meaningfully said qua certainties in the stream of the language-game. Articulating these certainties as such in the language-game is useless, pointless, meaningless, and its only effect is to arrest the game." Moyal-Sharrock [2004]. We do not want to engage this rather extreme interpretation here, especially in view of the fact that the ritual of introducing oneself is very common and rather meaningful, although surely not if one sees this as a speaker satisfying herself of newly acquired information.

[125]Cf., Wittgenstein [1969], §167.

[126]In the literature, this is also called groundless. One may see these two adjectives as synonymous. On an odd day, one may think that something is groundless when it has no grounds, and ungrounded when it has no ground*ing*. The latter is an action, the former is condition which may also comprise fiction statements which do not describe or inform about facts.

[127]The public character of grounding comes at odds with a claim like Kant's concerning aesthetic judgement given that, for him, we ground it on subjective feelings. The tension is removed if one couples feelings and characteristic gestures and behaviour that bring feelings to the intersubjectively accessible arena. More is said in the las subsection.

[128]Cf., Wittgenstein [1969], §192.

[129]Cf., Wittgenstein [1969] §§ 110, 152, 204, 274.

[130]Cf., Wittgenstein [1969], §115.

[131]Cf., Wittgenstein [1969], §§ 162, 197, 250, 281, 657.

[132]"What would a mistake here be like?" Wittgenstein [1969], §17.

[133]Wittgenstein [1969], §611.

argument or of isolated exceptions. The framework changes when the facts force it.[134] If these change, then our language games, and henceforth our concepts and words, may have to change too. Giving up is led by a pragmatic criterion: does it do any good to me to keep this?[135] For instance, while years ago it may been have absolutely certain that one had not been to the moon, one may say that (some time) after 1969 this ceased to belong to the steady points of society.[136] After this change of stance or conversion takes place, we might try to justify the falsity of former certainties.[137]

Certainties are learnt through experience and practice rather than by merely discursive means, and they express the basic framework that shapes our actions and deeds. But neither practice nor experience constitute justifications for certainties.[138] Experience does not teach us this or that proposition, bur rather a host thereof.[139] Expertise is acquired through repeated exposure: a child learns *This is my hand*, *These are my feet*, etc. through play and repeated interactions: we do not teach this by providing arguments. Learning, like in any case, requires trust.[140] Infants and newcomers to a cultural community have to grow into the framework certainties provide. Doubt is possible only after a good deal of trust and following of our forebears and caretakers. This trust, which should not be conflated with epistemic trust which adults may hold, is rather basic, infantile, primitive. Trust in this case has to be seen as a form of openness and responsiveness, an impulsive form of identification that is especially present at a young age.[141] Such basic trust makes it possible for there to be "agreement in judgements", the recurrence not only in nature as external phenomena but also in our human nature. Agreement in judgements is a requirement for communication.[142]

We assume that certainties are, by and large, shared with others.[143] This agreement has, as it were, a natural and a social constitution. Our ungrounded but solid belief in the regularity of nature also plays a constitutive role, a point we shall discuss further in section 4.3.[144] The compelling character of, say, the thought that the floor below our feet is still there is not just an externally given

[134]Cf., Wittgenstein [1969], §617

[135]Wittgenstein [1969], §97; see also §§96, 98-99, 211, 256, 336.

[136]Two remarks: this change is witnessed in how we read today Wittgenstein's example in Wittgenstein [1969], §§106, 106, 111, et ss., and the resistance to believe in the landing of Apollo XI on the moon exemplifies how resistant people may be to give up on a certainty.

[137]Cf., Wittgenstein [1969] §§65, 92, 98, 256, 578, 612.

[138]Cf., Wittgenstein [1969], §130.

[139]Cf., Wittgenstein [1969], §274.

[140]Cf., Wittgenstein [1969], §238, as well as §§150, 337, 509, 600, 604, 672.

[141]Cf., Bax [2011], ch.5.

[142]Wittgenstein [1958a] 242, see as well II, pp. xi, on which we give further comments below.

[143]Cf., Wittgenstein [1969] §§225, 274, 298.

[144]Cf., Wittgenstein [1969], §472. "The character of the belief in the uniformity of nature can perhaps be seen most clearly in the case in which we fear what we expect. Nothing could induce me to put my hand into a flame — although after all it is only in the past that I have burnt myself."

norm, but an internalised assumption.[145] But we are also born in communities which already live by certainties, we grow up with these steadfast points in our frameworks drilled into us rather than being taught to us explicitly. There is something universal here; not just something personal.[146] Whom do we expect to share our certainties with? Challenging these statements can leave us outside the community, become ostracised by our defiance to conform with the background of our fellow human beings.[147] This is a normative function of a certainty, as it delimits the boundaries of a community, those we admit and those we feel are beyond our reach and understanding. But identification is not total. In spite of the power and effect of the community in shaping the certainties that its members adopt and inherit, Wittgenstein's picture leaves some room for change in time, and for plurality among agents. In fact, differentiation is the condition of possibility of subjectivity.[148]

This differentiation also plays a role in avowals like *I am feeling pain*[149] or *My name is MIC*. Avowals can be seen as a subclass of certainties.[150] For certainties like *Arms do not grow back after they are cut off*, everyone equally takes this for certain. If *My name is MIC* is a certainty, then the idea that all certainties are shared and informatively idle when uttered needs qualification. The case of introducing oneself is indeed informative for someone whom I have never met before. But this is possible on the basis of my interlocutor's taking for granted that I am certain of what I utter.[151] Does this mean that error is impossible? This means that error is hardly conceivable, and that such a mistake would put in question my sanity.[152] In any case, an "asymmetric" certainty like the statement of my own name shows that one should beware of thinking of all certainties as grammatical rules,[153] and of deeming all meaningful utterances of a certainty impossible.[154] Perhaps surprisingly, a third-person restricted judgement like *He is in pain* also shares some features with certainties: "One says *I know that he is in pain* although one can produce no convincing grounds for this",[155] and this is different from a non-certainty like *I am sure he is in pain*. A person's characteristic expressions of, e.g., pain are not simply a collection of behaviour we note and from which we conclude that the other one is in pain. In this sense, characteristic expressions are not evidence of someone's inner life. This behaviour should makes sense as a phenomenon of pain to count as a characteristic

[145] "I act with complete certainty. But this certainty is my own" Wittgenstein [1969], §174.
[146] Cf., Wittgenstein [1969], §440.
[147] Cf., Wittgenstein [1969] §74.
[148] This is one of the main lessons in we take from Bax [2011].
[149] Cf., Wittgenstein [1969] §§41, 504.
[150] Cf., Stein [1997], ch.6. But note that this interpretation is not widely known or discussed.
[151] Cf., Wittgenstein [1969], §570.
[152] Cf., Wittgenstein [1969] §§571, 572.
[153] Cf. as well with Wittgenstein [1969], §628.
[154] This is a trend of interpretation found in, e.g., Moyal-Sharrock [2004] et ss.
[155] Wittgenstein [1969], §563.

expression of pain.[156]

Are certainties true or false?[157] Interpreters have given different answers.[158] OC does not give clear cut answers. In a sense it is clear that certainties are not true by being justified, by tallying with the facts. They make truth and falsity of this sort possible, they delimit the space of facts.[159] Still, certain passages call this into question, suggesting that certainties "are true, if anything is".[160] Likewise, the observation that certainties can change when reality cuts us short suggests that, in a sense, they can be denied. If one can speak of truth regarding certainties, this is a pragmatic notion: they are held as long as they let us flow in the flux of our environment, they are abandoned when they fall down from their place in the backbone of the epistemological framework, to become pieces of empirical knowledge with needs to be tested and which can therefore be challenged.

Are certainties judgements? Obviously, answering this depends on one's conception of judgement. If the question is whether for Wittgenstein certainties were judgements, we see that interpretation trends have defended different positions so giving a simple answer is not possible.[161] We do not want to examine that debate here, but just indicate that there is textual support claiming that certainties are judgements.[162] So if we want accept that certainties are judgements, we should accept that a judgement may be such even when questions of truth and justification are excluded.[163] When there is a clash in the certainties we hold, we may just "have to put up with it".[164] If certainties are judgements, then we need to accept that we judge even when our justifications have come to an end,[165] even when all we have are our ungrounded ways of acting.

We think that unrestricted judgements like *This cake is tasty/expensive/heavy* function in some, though not all respects, like certainties.[166] The first point to

[156]Cf., Hausen [2009], p. 38.

[157]Here we follow the hesitations in Stein [1997], ch. 6.

[158]Hacker [1996] sees certainties as unfalsifiable empirical propositions. Moyal-Sharrock considers that certainties are grammatical rules which are non propositional, non judgemental, non truth evaluable. Once more, we leave a discussion with the different interpreters out of the reach of this chapter.

[159]Cf., Wittgenstein [1969], §§94, 191, 205. Also: "If you measure a table with a yardstick, are you also measuring the yardstick? If you are measuring the yardstick, then you cannot be measuring the table at the same time". Wittgenstein [1956] III, 74.

[160]Wittgenstein [1969], §205. Cf., Wittgenstein [1969] §§83, 206.

[161]Coliva [2010] claims that certainties are judgements which play a normative role. For Moyal-Sharrock [2013], this claim is not granted by OC because Coliva takes judgement to be "bona fide judgment (belief or opinion that results from evaluation)".

[162]Wittgenstein [1969], §§124, 128, 129, 130, 140, 149.

[163]Cf., Bax [2011], p. 131.

[164]Wittgenstein [1969] §238.

[165]Cf., Wittgenstein [1969] §110.

[166]Perhaps it would be more interesting to relate unrestricted judgements to Wittgenstein conception of aesthetic judgement, which is not to be assimilated to his position concerning certainties. Space limitations prevent us from attempting this here.

raise is that unrestricted judgements are ungrounded. Taste judgements signal our practical coping, our readiness to act in accordance with patterns of behaviour shared by our community, being thereby informative to others of our readiness to act in particular ways.[167] Taste judgements are normally exempt from doubt because they are not empirical generalisations made upon evidence. What could count as evidence? I can tell someone why I like something and this may not take me any further. *The cake is tasty because it has ginger* can be met with a blunt: *Ginger is disgusting!* What would a mistake be like? If a speaker utters *This is tasty*, then if her gestures and bodily reactions show aversion or disgust, we will probably be puzzled. Correct use of taste judgements is established by the ensemble of shared practices, shaped partly biologically and partly culturally, associated with them.

But not all unrestricted judgements are like this. Similar would be a situation in which we lift a suitcase and say: *This suitcase is heavy.* But suppose we say this after looking at the scale at the airport and noticing that its weight is greater than the maximum allowance per passenger. Here, a justification is due and a rebuttal is possible. For instance, one may argue that the scale must be broken, since the suitcase was weighed twice before reaching the airport and in each case the scales indicated 20 kg. Does this mean that *heavy* or that judgements containing this adjective are ambiguous? No, but in the scale case we count on a public, conventional method and in the lifting case we do not. On which basis do we take the reading of a scale to be accurate? Don't we take this as evidence precisely because we know that the greater the number on a scale, the heavier it is? The method of putting something on a scale to check whether something is heavy does not define, but rather presupposes that we understand in like manner what it is for something to be heavy, or to be heavier than something else.

If we consider the role of experience in certainties and in unrestricted judgements, we see another point in common. We have defended the idea that to be able to say whether something is tasty, the speaker should have had gustatory experiences, at least one, with the object under assessment. Unrestricted judgements concerning taste, heaviness, temperature, etc., communicate one's embodied experience and reactions, voicing as well a definite normative attitude towards that object. However, not all unrestricted judgements require experience in the same way, in the sense of requiring specific embodied appraisals. If I carry the suitcase and this takes great effort, then I do utter *This is heavy* on the basis of experience. But when I pronounce this after weighing the suitcase on a scale, the judgement does not require that I undergo any specific bodily experience, it just requires that I master the measurement conventions that are shown by the

[167] "What is it like when people do not have the same sense of humour? They do not react properly to each other. It is as though there were a custom among certain people to throw someone a ball, which he is supposed to catch & throw back; but certain people might not throw it back, but put it in their pocket instead. Or what is it like for someone to have no idea how to fathom another's taste? Wittgenstein [1980b], MS 138 32b.

scale.

So is experience equally involved in certainties and unrestricted judgements? Certainties require drilling and repeated exposure, while a taste judgement can be made after one single gustatory test. Acquired tastes require drilling and experience. But to say whether something is tasty, one need not have tried something many times. So it seems that the exposure needed to grow into a framework of certainties is much more pronounced than that needed to make or assent to an unrestricted judgement.

Trust plays a different role in certainties and in unrestricted judgements. On the one hand, we mostly trust others when it comes to pain or disgust, but concerning taste or interest, someone else's view is not enough to let us make an assessment, but trust of a very personal sort allows us to follow someone's views advice. Trust is also what delineates the personal variation tolerated in the case of taste preferences: growing up within a culture, an infant is exposed to various food items, some of which she may openly and clearly refuse. To some extent, an infant's responses are accommodated, even if they do not tie in with the expectations of caretakers. Some variation is accepted, because not everyone likes the same, not everyone is equally strong or tolerant to pain. Plurality is accepted to a great extent, perhaps more for taste than for disgust, which shows that (some) interpersonal variation is acceptable. Early on, young infants show taste preferences and aversions that may not be shared by their caretakers. These responses (when repeated) are responsible for the differentiation that contributes to the shaping of the individual's subjectivity. But we should stress that these differentiations (a) are normally not massive, they occur against the background of shared reactions and (b) they are not always accommodated: there is a negotiation by which "the subject is able to disengage itself from the world picture it has inherited".[168]

Disagreement is possible only against the background of agreement in what we (don't) call tasty. There is a host of gestures, facial expressions and other embodied reactions related to food ingestion that we share.[169] Furthermore, there are naturally and culturally shared aversions (to e.g., very bitter or pungent tastes or coprophagia). When we join basic eating practices, caretakers react to our gestures and behaviour, they call the things we are fed with tasty.

Like certainties, taste judgements can change, both via taste acquisition and development of expertise (e.g., when learning to appreciate wasabi) and also via circumstantial conditions of our environment and/or ourselves (a wine may become acidic if left uncorked; a wine may taste poorly if tasted after eating chocolate). But, like when certainties change, this resembles more a change in world picture than a blunder or a retraction as the semantic relativist in the PPTs debate thinks of it. However, while a change in certainties is a change in world-

[168]Bax [2011], p. 133.
[169]Cf., Panksepp [2005].

picture, a revision of assessment may be due to a change in oneself.

We have been careful enough not to claim that unrestricted judgements function exactly like utterances voicing certainties. We have already pointed out a few points at which the similarities break down. Here we add a few more comments in this direction.

First, certainties are often thought to be grammatical rules for our language-games.[170] Can we think of unrestricted judgements like *This is tasty* in that way? Should we follow the metalinguistic explanation of how PPTs work in unrestricted judgements? When one says *Lemons are sour*, it is not clear whether we are positing a grammatical rule or making an assessment concerning the taste of lemons. Is the unrestricted judgement an evaluation or the open statement of a certainty? While we may be tempted by this case to liken certainties and taste judgements, we should see that a statement like *Pears are tasty*, which on a surface level is as much of an unrestricted judgement as *Lemons are sour*, is nothing like a rule. *Who says so?*, might someone ask. This surely is not a grammatical rule. Second, certainties like *This is a hand* are seldom voiced in conversation, unlike taste judgements or assessments concerning the heaviness or heat of an object. Third, there is a clear difference in the possibility and frequency of disagreement. While for certainties, disagreement or doubt might leave us outside of our community, challenging a taste judgement may be perceived as a somewhat impolite intervention, but in normal circumstances we are not deemed crazy for disliking one thing or another. Fourth, change seems to be somewhat more capricious for taste than for, e.g., heaviness, or with respect to certainties. After eating chocolate, I may not be ready to say that a certain wine I very much appreciate is tasty. We do not relinquish a certainty just for a while, as a consequence of contingencies which we see as being merely circumstantial.

We hope to have shown in this discussion that unrestricted judgements resemble certainties, to some extent. What does this yield with respect to the subjectivity of PPTs and other RGAs?

4.2.3 Lessons for a semantics of evaluative judgements

So, what lesson does this all leave for the task of modeling the meaning of restricted and unrestricted judgements?

We suggested that first-person restricted judgements, like avowals, are not based on evidence. We believe this gives some clues of what a semantics for an attitude verb like *find* should look like. Think of *find* as expressing a relation which is essentially asymmetric between first- and third-person perspective. What sort of relation? The speaker of a first-person restricted judgement does not have infallible knowledge about herself, she cannot provide you with evidence for her state but just display expressions that, if matching the characteristic

[170] This is, e.g., Hacker's view, contested by Moyal-Sharrock, among others.

expressions of the assessment she states in her judgement, normally lead the addressee to accept that the speaker feels what she says she feels. This requires that the speaker is taken to be honest, of course. She can feign and her behaviour can be only sheer mimicry, but we do not always suspect that others deceive us; this only happens in specific occasions, when expressions somehow do not match the assessment and where there is an alleged purpose for being misleading. Likewise, the speaker of a third-person restricted judgement is not condemned to make educated guesses about the assessments made by at the subject she speaks about. Her report is not one of imperfect evidence because the subject she speaks about does not have perfect evidence to her own undergoings. It is best not to see *find* as an epistemic relation we have with a proposition acquired by direct evidence for the first-person case, and with indirect evidence for the third-person case. At least in English, third-person restricted judgements like *Bea finds this cake tasty* are unproblematic. The fact that in Japanese a marker is needed saying *Bea shows signs of finding this cake tasty* can be seen as confirming the importance of characteristic expressions.[171] This suggests that, like avowals, restricted judgements do not merely depend on the internal psychological states, or rather, that psychological states of individuals are not purely internal.

To put it more daringly, we believe that in a restricted judgement *I find this cake tasty* or *She finds this cake tasty*, the verb *find* does not embed the proposition *That this cake is tasty.* The attitude verb *find* is not a propositional attitude verb. The asymmetry has to be taken at the core of this attitude verb, to stop seeing it as a mere fixer of an argument or index which may be the speaker herself or someone else.[172] Restricted judgements, we propose, signal our affective responsiveness. We propose to think of *find* as an affective relation, as signaling a manner in which the matrix subject and the object under assessment relate, one which can be characterised via the adjective *tasty* and the expressions that typically come with it. This object is a motivating force that drives the agent in a certain direction. You can expect that the agent acts in certain ways and not others. It is subjective because it is affective, but it is visible and intersubjectively accessible.

Of course, the sentences *I find this cake tasty* or *She finds this cake tasty* can be seen as expressing propositions, but on this basis we may not conclude that the agent of the verb has evidence for the truth of *That this cake is tasty.* If we think of *find* as an affective relation, we see how in the suitcase-lifting scenario, my finding is neither confirmed nor refuted by someone else's finding. Think of the third-person case: I say *She finds this heavy*, you carry it yourself and you say: *She was right!* Again, is her finding confirmed or refuted just because you have

[171] And maybe and as showing how different cultures have different views on the kind of attitude towards others as soul [eine Einstellung zur Seele] (Wittgenstein [1958a] §178) we have.

[172] We develop in chapter 6 the idea that attitude verbs like *find* are relations, a relation which is not equally given to the first- and third-person should be reduced to neither of these perspectives.

a similar experience? Maybe it is, but this is not a verification of our experience, it is a case of agreement in judgement.

We do not mean this to be a plea for expressivism. We do not claim that certain regions of natural language are descriptive and others are expressive or normative. When I say *I believe this box is heavy*, you may ask me: *Why?*, and I may show you a declaration of contents in which the owner of the suitcase indicates that there are 10 books inside. When I say *I find this box heavy*, then you may guess that this box is heavy but you may just as well reaffirm your idea that I am a very inexperienced carrier who does not know how to balance a small box on her shoulder. But suppose you, the experienced carrier, try to put it on your shoulder and then you exclaim: *Oh, but* IT IS *heavy!*. My restricted judgement is, as it were, ratified. But if you agree with me, this is still not evidence for my first-person judgement. Does this mean that my expression is right? If so, in what sense? It seems that its rightness should be seen as righteousness: since you also find it heavy, you conclude that *it is heavy*. So did my expression give you any information about the weight of the box? In the end, it didn't. A restricted judgement is not a representation of how the world may be, but rather a signal of how an agent stands in relation to its environment. Of course, we learn how to lie: I may tell you I find a suitcase heavy just to get you to carry it for me. The possibility of insincerity makes it clear that a restricted judgement expresses a proposition, even if the attitude verb *find* is not propositional. This is the main point we want to make.

What consequences should we draw, from what we have said so far, for a semantics of unrestricted judgements? We saw that it is not quite reasonable to claim that certainties are a particular kind of proposition. How about unrestricted judgements? Are unrestricted judgements a specific sort of proposition? This of course depends on how one conceives of propositions. Insofar as we can and do encounter denials of our taste judgements, of fun or beauty, one should admit that an unrestricted judgement is a proposition. Their negation is possible, imaginable and thinkable: both possibilities lie within the game.[173] Furthermore, we can lie about our tastes, our pains and our preferences. Deceit misinforms others about our undergoings and what can be expected from us. The lesson is that that in order for it to be possible to lie and deceive, a lot has to be in place. To distinguish our gut feeling from what we say and the gestures we show requires that we recognise our own reactions and dissociate from them our outer expressions.

We want to say that unrestricted judgements express propositions, in that they specify contents, but on the other hand an unrestricted judgement, like a certainty, signals a pattern of behaviour that is visible to, and to some extent shared with and shaped by, our forebears and caretakers. So an unrestricted judgement may be said to express a proposition, as long as we see that its satisfaction is not given by states of affairs but rather by the satisfaction of the expectations that

[173] Cf., Wittgenstein [1997] 288.

such evaluations induce. We signal that we partake in a pattern of behaviour and gestures which are expected to be shared with others in the community. Gestures and behaviour that we let others expect and that we expect of others has to become part of our semantics. The challenge ahead is to provide a specification of how exactly this is possible.

4.3 Conclusion: normativity without rules

We wish to close this chapter with a bridge between our selective readings of Kant and Wittgenstein. We want to briefly discuss a point of contact between merely reflective judgement and the normativity of certainties, the junction of our explorations in this chapter. In Kant's notion of merely reflective judgement, we found an epistemological characterisation of taste judgements which sheds light on their claim to universal agreement in spite of their lack of empirical grounds. In Wittgenstein's social conception of the self, related to his late philosophy of psychology and epistemology, we saw how experience is coupled with characteristic gestures and behaviour which are at the center of the communicative moves we make with restricted judgements like *I find this cake tasty* and unrestricted judgements like *This cake is tasty*. We can try to put the pieces together and see that mere reflection leaves evaluative judgements ungrounded in the sense introduced in OC. Mere reflection yields certainties, and these belong the the framework within which, via reflection, we produce and assess empirical claims. When we express in unrestricted judgements the patterns of behaviour and reaction that go along our experiences, we expect others ought to partake in those patterns. This sort of exemplary necessity is ungrounded in that it lies beyond justification, but it is basic to hold the frame on which scientific knowledge is woven.

A necessary word of warning is that it is not our intention to provide a (neo) Kantian interpretation of OC,[174] or a Wittgensteinean approach to Kant's third *Critique*, if that is even possible. We do believe that one can see a critical task behind Wittgenstein's work, including the bundle of observations edited as OC, as an investigation of the necessary conditions of possibility of language, meaning, communication, knowledge, psychological concepts, etc. However, this is not the occasion to do full justice to this claim, as it would become a discussion of its own going beyond our convenient perusal of the epistemological remarks we have reconstructed in this chapter.[175] The point we will press is more specific, that is, we argue that there is a point in common between Kant's conception of merely

[174]Coliva [2010] argues that certainties can be seen as synthetic a priori judgements. We find this claim interesting but we neither support it here, nor will we touch upon it in these paragraphs, for lack of space. See other relevant articles in Moyal-Sharrock and Brenner [2007], part II.

[175]But see Leinfellner [1982] and more recently Hanna [2011] for an some discussion.

reflective judgement and Wittgenstein's notion of certainty, namely, that they both make sense of how a claim can be normative without this being determined by rules, related to a basic and pre-linguistic normative attitude, which in both sorts of normativity have to do with the "primitive". These notions play for each of these authors a key role in making empirical judgement possible. Reflective judgement allows us to bring particular objects under empirical concepts. Reflection is bare ('blosse')[176] where we take our perception to be one that everyone who perceives the object ought to share, but where this is not based on the application of concepts or on the application of rules. One can see that mere reflection is ungrounded in the sense discussed in OC, as it subsumes the particular under the universal but "without any concept".[177] This does not mean that all content is non-conceptual, but rather that not all content is conceptual.

We saw that very much like avowals, restricted judgements are asymmetric but not due to there being an infallible or privileged observation that the subject ought to make. The asymmetry is due to the dual nature of our appetites, as an embodied experience is peculiar to each subject, but experience is conceptually inseparable from the gestural and behavioural reactions displayed by our fellow human beings. When we consider the unrestricted case, we see that these reactions are declared to be those which other members of our community ought to share, but that when disagreements arise, giving reasons is only possible where evidence and observation take place. In a taste dispute as a faultless disagreement, none of the dialogue partners has the upper hand, not because the judgements exchanged are based on subjective evidence, but because these judgements are simply not based on evidence. This implies that the concept of disagreement likewise has to be dissociated from evidence. Disagreement concerns how the interlocutors are prepared to act and how they expect each other to act. Faultless disagreements are not a result of there being a subjective determination of the truth-conditions or cognitive content of the proposition that the dialogue participants respectively assert and deny, but rather a clash of different ways to be oriented in the world. Our subjectivity, the existence of a self that is different from others, is revealed in a faultless disagreement. But why does such a conversation start anyway? To create community!

In both accounts revised here, the intersubjective agreement aimed at when uttering an unrestricted judgement is one that we can call 'primitive', in the sense that "the claim to agreement implicit in your response is not based on your recognition of the object as falling under a concept or satisfying a criterion".[178]

[176]Cf., Kant [1790], §XX.

[177]Kant [1790], §XX.

[178]Ginsborg [2011a], p. 24. Here and in Ginsborg [2012], the author elaborates on primitive normativity as a key to escape the skeptical interpretation of the rule-following considerations in Kripke [1982]. Here we will not delve into this discussion, that is, on the debate around semantic normativity, mainly due to its vastness. What we find valuable is that this notion which, according to Ginsborg can account for how linguistic meaning is normative although this

We have seen how this notion has a Kantian pedigree in the way merely reflective judgement makes it possible for aesthetic judgement to demand the agreement of others. Certainties exemplify the sort of agreement in judgement that makes it possible to acquire concepts without presupposing that, for this, concepts are already in place. They act as a contingent bottomrock for which we often do not have reasons because they don't involve evidential grounding or rules.[179] Normativity without rules, this *rara avis* of epistemology, provides a meeting point for the primitive substrate of language and communication. Appropriateness preceding veridicality, that is the common core of the lesson we draw from this chapter for the semantics of evaluative judgements.

Interestingly, Wittgensteinean primitive normativity as the one in certainties and in unrestricted judgements like *This cake is tasty* involves, like Kant's reflective judgement, an unspoken belief in the uniformity of nature which goes beyond what we can justify, and which is necessary for justification and scientific knowledge.[180] This claim to the intelligibility and regularity of nature does not stem from a naive form of naturalism, but rather stands as a transcendental condition of possibility for normativity without rules.

Finally, let us make a note for the reader familiar with the McDowell-Dreyfus debate.[181] One could try to summarise their positions as follows: while McDowell argues that all human experience is "conceptual all the way out", Dreyfus presses on examples of skilful coping involves non-conceptual form of experience, to argue that not all experience involves concepts. McDowell can be seen as supporting a conceptualist epistemology, whereas Dreyfus lines up with the tradition in phenomenology that takes the practical aspect of human interaction with the world as being basic for all cognition.

A first observation we make here is that what we have examined in this chapter is whether certain judgements can make a claim to the agreement of others, where correctness is not guaranteed by concepts but where normativity is exemplary and ungrounded. Does this mean that the experience involved in a taste judgement is non-conceptual? It does if one endorses the view according to which pleasure results from the act of making a taste judgement, but we have seen that there are different positions in this respect. In any case, we would like to make sure that one does not convert this into an exclusive feature, to the effect that when concepts are involved in our taste judgements these cease to be legitimate judgements. We referred to the case of an expert who invokes refined conceptual knowledge

normativity is not provided by oughts which rest on rules we agree upon, also plays a key role in the specific case of aesthetic judgement (understood broadly, i.e., as judgements related to a feeling or sensation, not just as assessments of the beauty or a related property of an object or work of art).

[179] Cf., Wittgenstein [1969], §95.

[180] Cf., Wittgenstein [1969], §472.

[181] The different stances and reactions in this debate can be found in Dreyfus [2005, 2007a,b] and in McDowell [2007a,b, 2008a,b].

to classify, e.g., sorts of coffee. If she would say *This 'robusta' is very tasty!*, her judgement is no less of a taste judgement than the layman's judgement *This coffee is tasty!*

A second, more contentful observation is that if one puts more emphasis on the role of reflective judgment as the ability to generate concepts, one may see Kant in the third *Critique* as standing somewhat closer to Dreyfus than one might have guessed if one focused on the more intellectualist sort of position coming from, for instance, the first *Critique*. We generate concepts through the operations of comparison, reflection, and abstraction, where similar operations are involved in producing the feeling of pleasure (as free play of the faculties) while not terminating in a concept. So a conceptualist epistemology actually springs from primitive normativity. We do not want to press on this point to far here for it would require lengthy discussions to defend it in detail, discuss it, and qualify it. This is, however, the most salient way to see how this chapter would echo the debate.

The third and last observation is that a way of conceiving of skilful coping, namely as selective responsiveness to relevant affordances, is used in the next chapter to make sense of the intentionality of taste judgements. This will not be presented as a stance with respect to the McDowell-Dreyfus debate, but rather as a strategy to identify the specific aboutness of taste and similar judgements. We shall see that while in a way this deepens our inclination towards Dreyfus's position, we will also move along McDowell's objections to a naive distinction between the descriptive and the normative as distinct sorts of meaning.

Chapter 5

Intentionality for evaluative judgements

In the previous chapter, we have seen that evaluative judgements importantly depend on how people act, and how they expect each other to act. We argued that one can nonetheless see these judgements as expressing specific contents. But a narrow conception of intentionality would not give us grip on them because how people act non-linguistically is normally seen to fall outside of the scope of semantics. Our strategy will be to argue that the notion of disembodied intentionality underlying the semantic theories for gradability and predicates of personal taste (PPTs) we have reviewed can be identified as the source of the limitations that make it difficult to get a grip on evaluative judgements. More importantly, our task here is to sketch an alternative, an embodied notion of intentionality. To perform this revision, we appeal to phenomenology, in particular to Merleau-Ponty [1945].[1,2] Hopefully we smooth the way for the reader who is not familiar with phenomenology. We do not make here full commitments with Merleau-Ponty's views, our goal is to enlighten our problem by borrowing a few of the lessons that he leaves.

Although Merleau-Ponty's phenomenological enterprise is by no means limited to the study of consciousness and cognition, this aspect of his work has been taken up as a source of questioning of analytic philosophy of mind, epistemology, the cognitive sciences, and even artificial intelligence.[3] By conceiving the subject as an embodied consciousness which is possible only in the ground provided by the social world, Merleau-Ponty has become the source of alternative conceptions of

[1]This chapter is partly based on joint work with A. Battán Horenstein, presented in Nijmegen in June 2013, and also on joint work with J. Kiverstein and E. Rietveld, presented in Evian and Budapest in 2013.

[2]Our reading of Merleau-Ponty owes a lot to Battán-Horenstein [2004] et ss., as well as to Kelly [2010] et ss.

[3]Although the contributions from Dreyfus [1972] to embodied cognitive science is mainly associated with his attack of AI which heavily relies on Heidegger as the source of suspicion, it also draws from Merleau-Ponty's own work. One can also see Merleau-Ponty being turned against AI explicitly in Dreyfus [1996].

the mind and intelligent agency which overcomes the limits of intellectualist or reductionist views.

In section 5.1, we try to spell out something that should be most familiar, and for that very reason our move is difficult. The semantic theories for PPTs we have reviewed have a common root. After Frege, semantics focuses on the informational content of a sentence or discourse, on what we learn about the world. We argue that the underlying view of intentionality is disembodied in the sense that it assumes that the world constituted by objects and properties is a given which is independent of the experiences or actions of agents. We point out how this idea of intentionality as a property of an intellectual consciousness closely relates to Merleau-Ponty's reconstruction of Husserl's notion of thetic intentionality. Thetic intentionality posits, intellectually, a world of objects.[4] Taking Merleau-Ponty's criticisms as a springboard, we will argue that disembodied intentionality does not leave room for the subjectivity of evaluative judgements. The only way a subject can fit in a world of objects is to reduce it to an objective body, which is different from a lived body, the body of a subject.

Phenomenology is usually concerned with aboutness not just limited to linguistic expression, and it can contribute to a reworking of the notion of linguistic meaning, as we shall see in section 5.2. In particular, we will appeal to Merleau-Ponty's idea of operative intentionality, the kind of directedness we recognise in purposive movement, as being basic for every intentional act, so also for thetic acts. The role he assigns to what he calls the lived body, in contrast to the objective body, as the axis to all meaningfulness will allow us to re-work the notion of intentionality relevant for linguistic meaning. We will thereby come to see how linguistic agents can become embodied, how to see the meaning of their utterances as signaling not only what information they have about the world but also how they feel embedded in it. The punchline is this: the aboutness of evaluative judgements involves a mesh of information and affect, an entanglement of how we feel, how we expect others to act, and what we know and believe. To spell this out, we appeal to the notion of affordance in order to specify the way expected patterns of behaviour can come to be part of the meaning of evaluative judgements. Intersubjective understanding is possible, not by virtue of a shared (partial) representation of what the world is like, but rather by our shared intercorporality. This is not the only, but it is the most crucial element in the shared background that shapes our expectations concerning how others feel, and what they expect of us. This is the public face of subjectivity, and through it subjectivity can enter into linguistic meaning.

Any pushing requires some effort. As we try to push the boundaries of the notion of intentionality that the semanticist can be concerned with, there is an

[4]Here and elsewhere the relevant notion is that of 'Setzung' which has a strong locative element that the translations "to posit" or "to postulate" miss. We stick to the expression "to posit" but only for lack of a better expression.

effort to be made. Even if there is some straining in our pushing, we hope that our reader will see that no boycott of semantics is proposed here, only a problematisation and enrichment of its object of study. The fundamental revision of the notion of intentionality offers, we hope, a renewed basis for a semantic analysis of PPTs and other relative gradable adjectives (RGAs). Before we get to sketch a semantic theory for these adjectives in chapter 6, we argue in section 5.3 how the revised basis we offer in the present chapter sheds light on the specific linguistic phenomena addressed in this dissertation. We include a discussion of the relation between semantics and pragmatics in this revised setting, and we also address the issue whether we are making the same claims as the expressivist.

5.1 Disembodied intentionality

Great and many are the achievements of semantic theorising, which since Frege has shed light on the compositional folding and unfolding of the meaning of sentential expressions. What we wish to do here is certainly not to question or discredit its many successes, but rather to make explicit the underlying general notion of intentionality that a well-established conception of semantics relies on. Disembodied intentionality takes semantic contents as being independent from our experience as situated, embodied agents. Powerful as though this notion of intentionality may be, it does not exhaust all intentional phenomena.

In subsection 5.1.1, we sum up the main traits of this post-Fregean idea of meaning, and we further explain why we take this to be a disembodied perspective. We shall make clear that although this view may accommodate the objective dimension of our embodiment, it misses its lived dimension. In subsection 5.1.2, a historical excursus, we indicate the relation of this view on linguistic meaning with Husserlian thetic intentionality, as reconstructed by Merleau-Ponty. In subsection 5.1.3, we give a systematic argument why disembodied intentionality alone is too narrow to account for the meaning of evaluative judgements. This is as well a plea for a broader view on intentional content relevant for semantics, one that encompasses the embodied aspects of cognition.

5.1.1 An assumed view of aboutness

In our attempt to describe the underlying notion of intentionality within which semantic analyses for PPTs have been given, one challenge is that theories differ and often for good reasons. Here we will not deny their differences, but rather focus on how these trends all see linguistic utterances as propositional acts of a disembodied consciousness. Although the exact physiognomy of propositions varies with each formalism, there is coincidence in taking a proposition *not* to be a subjective idea, to be a subject-independent entity whose main characteristic is to be the bearer of truth values. The objective, be that the actual or the non-

actual, is sharply separated from the subjective, the psychological, what belongs to the subject and its consciousness.[5]

Existing analyses for PPTs have been developed within a strong tradition in semantics which focuses on the informational content of linguistic expressions as the kernel of their meaning. The informational content of a sentence, which we may generally call a proposition, is determined a priori, through a calculus of possible states allowed by a language. The intentional content of a sentence is a partial representation of states of affairs, summed up in an enumeration of the conditions under which what is said would be true.

We cognise by apprehending objective thoughts, recognising their truth, and asserting their contents. Linguistic expressions seen as information carriers are meaningful by virtue of the objective positing and predication they achieve, given a context. The objectivity of the semantic contents of linguistic expressions is the Fregean and post-Fregean warrant of intersubjective understanding. Communication is achieved precisely because a proposition which is expressed or grasped, believed or doubted, belongs to our "common treasure", it is thus shared and is not the feeling or experience of a single subject. Although two-dimensional semantics holds that truth-values are relativised to two possible world parameters, these are still objective features of context, like who is the speaker, the time, the place at which the conversation holds. In Kaplan's setting, the context is the state of the world in which a sentence is uttered, a circumstance of evaluation is the (possible) state of the world which is relevant to determining the extensions of expressions in the sentence. Even those who support different versions of relativism hold that contents remain constant across individuals. So although the truth-value of a proposition may be decided differently by different subjects, what determines satisfaction is objective.

If human thought is expressible only if it concerns "common property of many and is not a mode of an individual soul",[6] an intentional state is such only insofar as one can characterise its truth-conditions or informational content. A mental state is contentful only if what it is about can be specified objectively, because otherwise it is not possible to say whether it is true or false. Even though information may be partial, it concerns the objective — either actual or non-actual —, and not how things are with individual souls. When one leaves no room between, on the one hand, the objective and communicable, and, on the other hand, the subjective and incommunicable, there is no chance of giving linguistic expression to the undergoings of individual beings. This general view, though Fregean in origin, is by no means limited to Fregean semantics. It is, after all, a very sensible view on what language can express if one believes that when one provides a formal representation and pairs them with natural language expressions, one

[5] A cornerstone of Frege's view is found in this sharp separation explicitly made in various works, notoriously in the *Grundlagen*: "Always to separate sharply the psychological from the logical, the subjective from the objective".

[6] Frege [1892], p. 29

actually reflects cognition as being a matter of discovering by perception and inquiry a world constituted by objects and properties.[7] One could say that most research in semantics is an heir of Frege, in this sense, for it is commonly assumed that indeed the focus of the discipline is informational content, the information about the current or potential state of the world it carries.

Allow us a terminological clarification. Why call it disembodied intentionality?[8] Contents are eternal objects of a transcendental consciousness, only grasped but not produced by concrete people who are moved and act in this or other way. Within this view, "embodiment is not some real phenomenon from which we abstract, but an irrelevant property of human subjects."[9] Linguistic meaning is given by objects on which no trace of the subject is imprinted, even though there can be no object without a constituting subject. For the view we are trying to characterise here representation is taken to be the feature of language that semantics should take care of. Sentences and discourse carry information, they represent the way things are, or can be, and semantics takes care of bootstraping the context-invariant content which makes this possible. Disembodiment is a theoretical choice which partly hinges on the idea that the aboutness of linguistic expressions depends on acts of an intellectual consciousness.

5.1.2 Disembodied and thetic intentionality

Disembodied intentionality as a general account of linguistic meaning can be embedded in a slightly more general but also restricted view of intentionality as aboutness of conscious acts: Husserlian thetic intentionality, as reconstructed by Merleau-Ponty.[10] This embedding is meant to show some of the deeper roots of the idea of subjectivity underlying disembodied intentionality, and it will suggest where to look for alternatives. We do not wish to identify the two here, disembodied and thetic intentionality,[11] but rather point out that disembodied

[7] Here we are looking at the introduction of Peregrin [1995].

[8] In cognitive science, in particular in neuropsychology, disembodied cognition is seen as the hypothesis concerning the relation between conceptual processing and sensory and motor systems (cf., Mahon and Caramazza [2008]). Disembodied intentionality, as we use it here, would surely be related to that hypothesis but is not exactly the same. If the disembodied cognition hypothesis is right, then, e.g., from recognising the cake in front of me as a sachertorte, a conceptual ability, and exclaiming *Sachertorte is tasty!*, to the mouthwatering sensation and fixation of my eyesight on the cake, "the output of conceptual processing must, at some level of processing be packaged into a format that can be 'read' by the neural systems that enervate the body." Mahon and Caramazza [2008], p. 60.

[9] Stokhof and van Lambalgen [2011], p. 15.

[10] Here we are not trying to reconstruct in full detail and justice Husserl's own notion of judgement, which is rather complex and which evolves along his oeuvre. We are trying to give an extremely succinct reconstruction of how, in the eyes of Merleau-Ponty, Husserl conceives of intentionality as being fundamentally thetic.

[11] The label 'disembodied intentionality' as we are deploying it here concerns linguistic meaning. Intentionality that Husserl examines (and which Merleau-Ponty labels as being 'thetic')

intentionality as an all-encompassing view of linguistic meaning fits well with the idea that all consciousness, mostly consciousness as involved in acts of so-called higher cognition, is thetic.

"All consciousness is consciousness of something", says the phenomenological dictum, and the essential characteristic of consciousness is intentionality qua directedness or aboutness. But, as Smith indicates, "Husserl focused on the intentionality of thought and perception as cognitive apprehension of objects in the world, whereas Merleau-Ponty focused on the intentionality of perception as essentially involving meaningful embodied behavior, or action."[12] It is difficult to make a very contentful reconstruction of Merleau-Ponty's understanding of Husserlian thetic intentionality, for not much is written by him on this.[13] For our purposes, it suffices to make clear that thetic intentionality renders judgements as intellectual operations with no trace of the pre-linguistic, be that gesture or habitual behaviour.[14]

In Merleau-Ponty's reconstruction, Husserlian thetic intentionality is the sort of aboutness of a judgement involving an intellectual positing of a world of objects.[15] A judgement involves an intentional act that has an object which is intended in a particular way.[16] There is an intellectual act in which the conscious

concerns experience, for instance in perception, where language can play a role but which is not by itself a linguistic phenomenon. We do not wish to subscribe to the so-called West Coast interpretation of Husserl and remove all distance between Husserl and Frege, who is arguably one of the patriarchs of the view for which intentionality as pertaining language is to be seen in terms of informational content. Husserlian thetic intentionality does not mediate between the intentional agent and reality, whereas Fregean Sinn certainly does. For a view defending the idea that Husserl's Sinn is also mediational, see Smith and McIntyre [1982], ch. 3.

[12]Smith [2004], p. 125.

[13]Note that there is quite some discussion about whether Husserl may be seen as "the precursor of the current interest in intentionality - the first in the philosophy of language and the mind to have a general theory of the role of mental representations". Dreyfus [1982], Introduction. For a critical voice, see, e.g., Rivenc [1996].

[14]A way to see what *thetic* means is recall the distinction between thetic vs. telic (Humberstone [1992]), also related to Anscombe [1957] and Searle [1979] et ss.'s discussions of two directions of fit of judgements. One direction is words-to-world, typical of descriptions and predictions, the other is world-to-words direction, typical of promises and commands. Along these lines, it is thought that some mental states are thetic because they are satisfied when they fit what the world is or may be like, while other states are telic because they are satisfied when the world meets the constraints these states impose. The problem is that this contrast turns these two into exclusive categories, while we want to argue that theticity alone cannot serve to fully characterise the content of all judgements, in particular, the content of evaluative judgements.

[15]Perhaps this reconstruction is most closely related to the *Logical Investigations*, where positing awareness affirms the existence of its object whereas nonpositing awareness suspends judgement about the existence or non-existence of the object (Husserl [1900/1] V § 34).

[16]Note that for Husserl, "an act of judgment is always the act of some cognitive subject, some cognitive agent. This form of subjectivity, however, is anything but 'merely subjective'. For with the introduction of the activity of judgment we also introduce an ideal-governed domain — a domain of activity that is partly constituted by its recognition of the authority of an ideal

agent reflects on the position she takes with respect to the intended object, and explicitly classifies it under some category or other.[17] It is a portrayal of our contact with the world as always involving the determination of an object as distinct from ourselves, a cogitation in which attitude and intentional object can always be distinguished.[18]

In judgements as characterised by thetic intentionality, the subject can only be spoken of if it is posited as an object of a consciousness. Subjectivity can be linguistically expressed against the background of an already constructed world of objects. If the body comes to matter in a conversation, this is the body as an object among other objects. Disembodied intentionality as a characterisation of linguistic meaning thus fits within the boundaries of thetic intentionality, for the latter characterises every intentional act as one which intends a transcendent objectivity (actual or non-actual). A consciousness which is thetically constituted presupposes that one can always distinguish attitude and object. Beholder and beheld are neatly distinguished in Frege's conception of proposition and propositional attitude; this is, after all, the very crux of the Hesperus-Phosphorus puzzle that partly motivates the specific Fregean notion of proposition.

With this embedding of disembodied intentionality within Husserlian thetic intentionality in mind, we note that once one sets the boundaries of the expressible along the boundaries of the thetic, aboutness beyond the thetic also goes beyond what can be linguistically expressed. This leads to the core of the argument: the subjectivity of evaluative judgements is not accommodated within the boundaries of disembodied intentionality. We need to consider critically the notion of body that is at stake when we say that taste, together with other experiences involved in evaluative judgements featuring PPTs and other RGAs, is subjective. For this, we introduce a further couple of phenomenological tools, namely, the Merleau-Pontyian distinction between the objective and the lived body. We shall see that the latter is the one directly involved in the subjectivity of taste.

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of consistency and theoretical unity." Martin [2005], p. 216.

[17]Heinämaa [1999]: "... Husserl explains in the first part of his Ideas, that all experience includes primordial belief. Every experience has, in other words, a doxic thetic layer." (p. 53)

[18]Merleau-Ponty also associates thetic intentionality with Kant, as he refers to it as "the only intentionality discussed in the Critique of Pure Reason". (Merleau-Ponty [1945], Preface, p. xx) But he grants Kant with a little bit more sophistication: "Kant himself shows in the Critique of Judgement that there exists a unity of the imagination and the understanding and a unity of subjects before the object, and that, in experiencing the beautiful, for example, I am aware of a harmony between sensation and concept, between myself and others, which is itself without any concept. Here the subject is no longer the universal thinker of a system of objects rigorously interrelated, ... It is no longer merely the aesthetic judgement, but knowledge too which rests upon this art, an art which forms the basis of the unity of consciousness and of consciousness." (Merleau-Ponty [1945], Preface, p. xix) This remark is remarkably close to the interpretation of the role of merely reflective judgement we presented in chapter 4.

5.1.3 Objective and lived body

Merleau-Ponty takes up Husserl's[19] distinction between a material, inanimate body ('Körper'), and a living, animate body ('Leib'). Merleau-Ponty agrees with Husserl, who sees our own body in the second sense as a " 'zero point' of all orientations",[20] but he goes beyond Husserl because he takes the body as the root of all intentional content, from the most primitive to the most intellectual.

The material or objective body, a conglomerate of organs with interconnected physiological functions which we can understand with the aid of scientific disciplines and empirical research, is an abstraction which does not include the lived experience. The objective body exists but only conceptually; it may be the material vessel of consciousness, and its workings and (mal)functions may affect consciousness, but it is not the body that a sentient agent feels as its own. At the level of the objective body, though countless processes take place which have an influence of how we perceive the world, the body that we live by is not involved.[21] As Merleau-Ponty argues, "the objective body is not the true version of the phenomenal body, that is, the true version of the body that we live by: it is indeed no more than the latter's impoverished image, so that the problem of the relation of soul to body has nothing to do with the objective body, which exists only conceptually, but with the phenomenal body."[22] The objective body is, by its very definition, *not* a subject.

The lived body[23] has abilities, it is a a task-directed system of possible actions, a "lived relationship between an intelligent but pre-reflective body and the world it encounters and perceives through continuous immersion, awareness, and actions."[24] Thus, the subject is "neither a thinker who takes note of a quality, nor an inert setting which is affected or changed by it, it is a power which is born into, and simultaneously with, a certain existential environment, or is synchronized with it."[25] In the meeting of body and world when, for instance, we move our hand to reach out a cup, each pole in these pairs is defined in terms of its interaction and complementation with the other pole. The subjective and the objective form together an inseparable dyad, so reductionist or functionalist options

[19] In his introduction, Moran [2002] argues that this distinction also has its roots in Scheler.

[20] Husserl [1989], 166.

[21] One may think here of Nagel [1974] and whether Merleau-Ponty is not doing just the same. Their projects concur insofar as perspective is integral to subjectivity. But "While Nagel tries to integrate phenomenal properties into the real word, Merleau-Ponty shifts to the phenomenal level of the life-world and 'lived body' where physico-chemical and mental properties become integrated into each other." Northoff [1997], sec. 6, p. 114.

[22] Merleau-Ponty [1945], p. 501-502

[23] Terminology is not always consistent, partly due to differences among translations of Merleau-Ponty's work, and partly because Merleau-Ponty himself explores the notion through different angles. Thus, one could put together the lived body, living body, phenomenal body, and *corps propre*, as slight variants of one same idea.

[24] Seamon [2013], p. 2.

[25] Merleau-Ponty [1945], p. 245.

are not an option in this view. The objective world as an ideal of impartiality is the result of our taking distance from what is presented to us in the phenomenal field, that which is presented to consciousness. Consider again the Müller-Lyer arrows. How the segments in the arrows are presented to us is given in of our phenomenal, in particular our visual field.[26] The question about how their length compares only arises when we compare each segment's determinacy beyond their givenness in our perceptual experience, it belongs to the objective world.[27]

Now that we see the difference between objective and lived body, we can get to the core of the argument. The subjectivity of evaluative judgements is not accommodated within the boundaries of disembodied intentionality because this view on meaning does not allow for the lived body to enter into language, except if it is transported onto the realm of the objective.

5.1.4 Disembodied intentionality and subjectivity

Our point is that evaluative judgements are not fully accountable only on the basis of disembodied intentionality. If one tries to do this, the subjective component combusts away, for it is captured as an objective determination and not as a lived experience. The bottomline is that disembodied intentionality objectifies subjectivity: the delineation, cut-off point, judge index or parameter, perspective, or experiencer is said to be the anchor for claims whose meaning depends on their truth-conditions. This assumes that what is true is given to the lived body, whereas in perception we are given presences, profiles. To clarify what a profile is,[28] we take the example of a lamp we have in front of us.[29] When we see a lamp, we do not see its back, and yet we are ready and happy to say that it has a back. The issue is that "...this formula, 'It is true', does not correspond to what is given to me in perception."[30] None of these profiles is true or false, just as none of the presentations of a lamp to perception is the true lamp. A recursive characterisation of the truth-conditions of an evaluative judgement may be an interesting task from a formal point of view, but it will not help to capture what is subjective, what is given to us through experience in perception. This is not to say that thetic intentionality leaves no room for subjectivity. This is to say that disembodied intentionality cannot handle subjectivity without objectivising it.

This discussion is tied to the global objection to degree vs. delineation approaches made in chapter 3, subsection 3.3.2. The discussion here goes beyond the one there because now we see a more precise sense in which subjectivity is

[26] "This phenomenal field is not an 'inner world', the 'phenomenon' is not a 'state of consciousness', or a 'mental fact', and the experience of phenomena is not an act of introspection or an intuition in Bergson's sense." Merleau-Ponty [1945], p. 66.

[27] Cf., Merleau-Ponty [1945], p. 6.

[28] This notion of profile is related, although not identical to Husserl's 'Abschattung'.

[29] Cf., Merleau-Ponty [1945, 1964].

[30] Cf., Merleau-Ponty [1964], p. 14.

objectivised. When putting what is subjective about taste, or about any embodied experience, as a component of what makes a claim true, we actually lose grip on experience as given in perception.

With respect to evaluations, like assessing a mountain to be high, Merleau-Ponty says that a mountain can appear high to him "because they exceed my body's power to take them in its stride".[31] I could believe I can climb it and be wrong. Someone may desire to climb it at some point in her life, in spite of the effort that would take. One of us may intend to climb it anyway, to prove she is strong enough. These considerations, the belief, the desire, the intention, indeed involve an intellectual process. Still, the position I take when I see the mountain and it appears to be high remains until I have taken enough strolls to become an experienced climber, in the course of which the mountain may slowly come to appear less high. The positing character of thetic intentionality involves the constitution of an object of experience and the reflection of the agent of her position with respect it. The affective dimension of our evaluations is not posited on an object, it concerns our embodied condition and interaction with potentialities of our environment: we are involved as lived bodies.[32]

Consider once more the Müller-Lyer arrows. When the segment in the image above appears longer than the one in the image below, what matters is how they appear in our visual field. The horizontal lines are given to the lived body but not as determinate lengths.[33] Our belief that the two segments are of equal (or unequal) length might be wrong, we can lie about how something appear to us, but in what sense could their appearance be wrong? Once we come up with a way in which we can observe and compare the two segments alone, stripping off the rest of the context by covering or by using another segment whose length remains constant, we can see the segments as being equal. But this is different from our initial findings, from the appearance of the ensemble of figures to in our field.

Under these lights, the idea that subjectivity of PPTs may be given in the denotation of an object's position according to a qualitative scale, as some theories of PPTs hold, squares with the objective body, but not with the lived body. If an evaluative judgement's business would be to report a measurement, qualitative or otherwise, it would not concern the subject as such but its material, objective determinations. Subjectivity is neither a mental nor a material phenomenon. This middle ground where it is given is the lived body.[34] Of course, living and

[31] Merleau-Ponty [1945], p. 511

[32] As we shall see in the coming section, they make thetic intentionality and thus the positing of objects possible, according to Merleau-Ponty.

[33] One may think that what is at issue here is a case of epistemic uncertainty, that the phenomenal field is epistemically underdetermined and that this is the difference with the objective world. This is not really viable, first because the mere question of length does not arise unless we get out from the phenomenal field and move towards the objective world.

[34] "The psycho-physical event can no longer be conceived after the model of Cartesian physi-

thinking and feeling are intertwined. But they are not reducible to each other.

The contextualist includes the judge (or a group thereof) as the source of a (qualitative) scale, a standard, or the source of the linguistic convention that this judge tries to pass on the conversation at hand. The contextualist is careful to note that linguistic conventions are not objective, not a matter of fact. But if the linguistic convention depends on where judge draws a line, what standard of comparison she settles, it is an objective matter nonetheless. What of subjectivity is left if its only trace is to fix a standard for the intensity or extent of an experience in a given context of utterance? A difference in linguistic conventions is, in the end, a case of there being "materially different assumptions about the discourse situation".[35]

For the relativist, though the content of an evaluative judgement is one and the same for all judges, each judge determines truth for herself. Is the judge objectively given? Lasersohn [2005] is careful with this matter. He claims explicitly that he secures the subjectivity of the assignment of the judge who is to judge, in other words, that there is not one view that fixes objectively the truth or falsity of a taste judgement. In his words, "we must allow that the objective facts of the situation of utterance do not uniquely determine a judge."[36] The picture coming out of this gambit to avoid the objectivity of judge assignments is philosophically limited. Indeterminacy and subjectivity are not to be confused. What Lasersohn gets is that upon the utterance of an evaluative judgement at a given situation, a multiplicity (if not an infinity) of contexts arise, all of which seem to be on equal footing to assess the judgement's truth. An evaluative judgement may be indeterminate because of the multiplicity of possible judges one can pick, but once a judge or (group thereof) is picked, no subjectivity is left. One can read this as a straightforward neglect of the distinction between Merleau-Ponty proposes that we think of how "It is true" relates to what is given in perception.

Nuanced absolutists are, first and foremost, absolutists. In this sense, they claim that taste judgements concern matters which have absolute truth-conditions and which are independent of any specific subject. The specific means to get subjectivity into the picture deploying first-person based genericity assume subjectivity involves the application of a property to individuals in the domain as if to oneself. But this in a way neglects the clear fact that, for instance in the example of the lamp, the profile I see is not the profile you see when you stand

ology and as the juxtaposition of a process in itself [the body] and a cogitatio [the mind]. The union of soul and body is not an amalgamation between two mutually external terms, subject and object, brought about by arbitrary degree. It is enacted at every instant in the movement of existence." Merleau-Ponty [1945], pp. 88-89.

[35]Barker [2013], p. 251.

[36]Lasersohn [2005], p. 669. He does this by letting "context" be a mere technical term in his theory, a formal element which fixes values for parameters such as the agent, judge, etc., and by taking any concrete situation of utterance to determine as many contexts as there are individuals who are potential judges (cf., Lasersohn [2005], p. 669). For all the technical merits this move may have, we doubt its cogency.

opposite of me in the same room, on the other side of the table where the lamp stands. It seems that the price to pay to make room for subjectivity is to ignore that others have in fact other stances and experiences, for them the phenomenal field is not like mine.[37]

Expressivism of the sorts we have seen proposes two different strategies. Common to them is to claim that there are two aspects of meaning, where the basic one is a truth-conditional component. For the kosher option, the additional aspect of meaning belongs to pragmatics.[38] For the non-kosher one, the additional layer is semantic in nature, it is a use-conditional layer working next to the truth-conditional one.[39] This strategy objectifies subjectivity because the when Alf says *This cake is tasty*, what is subjective here is that he is actually saying *This cake is tasty to me*, which has plain truth-conditional content, it is an objective facts in the world. The kosher strategy pictures subjectivity as an expressive-affective dimension that is understood by an addressee when she succeeds in imagining herself as having the attitude the speaker is in. This comes close to the sort of givenness of profiles that we get in the phenomenal field, except that it makes it a job of imagination to understand what profile our interlocutor is getting, what her subjective experience is. Whether agents in an audience actually manage to imagine themselves in the position of the speaker is a contingent matter. However, we understand the other's view even when we do not in fact manage to imagine ourselves in it.

We quickly sum up this section before moving on. We have argued that the notion of intentionality underlying natural language semantics as an enterprise which theorises on meaning in the footsteps of Frege is disembodied. We have shown how this idea of intentionality pertaining to language fits the notion of thetic intentionality, and we have then discussed the unfitness of disembodied intentionality if one wants to capture the subjectivity of evaluative judgements. In the next section, we start lay down the building blocks for a positive alternative.

5.2 A sketch of embodied intentionality

The core of our analysis is that evaluative judgements express the concerns of linguistic agents qua embodied agents. Relying on Merleau-Ponty's characterisation and analysis of pre-reflective or operative intentionality, we elaborate an embodied conceptualisation of linguistic meaning. The aboutness of evaluative judgements concerns a mesh of information and affect, it is determined not only

[37] Our own use of dispositional genericity in Crespo and Fernández [2011] suffers from a different problem. Dispositional genericity as we deploy suggests that subjectivity is mainly a matter of how we are disposed to act, but subjectivity often takes us beyond our dispositions and habits. We need to make room for suprise, for the new, dispositions are not an adequate tool for this.

[38] Cf., Buekens [2011].

[39] Cf., Gutzmann [2014].

by what we know but also by the way we respond to our environment qua embodied agents, before any objective positing is achieved. We respond because the environment solicits us to do so, its sets before us more or less difficult challenges and summonings. The thetic and the bodily aspects of evaluative judgements intervene in their semantic specification, where the bodily aspects stand in a primary position with respect to the thetic. This should give a clue of why we will not simply claim here that what is needed is a layer of meaning or use or thought which stands *next* to the thetic, disembodied one. What we will need is a prior layer, that can make sense of what goes on in the thetic one.

To spell this out, we draw upon the notion of affordance, the solicitation of an aspect of the environment to an agent who is drawn to respond in a specific way. We argue that evaluative judgements express our responsiveness to relevant affordances offered by the environment. Their interpretation requires us to accommodate and abide by the expectations, linguistic and non-linguistic, that these judgements engage us with. Our evaluative (dis)agreements allow us to signal and attune our responsiveness to our environment, to categorise it, and to modify it. Isn't this something that comes with all language, not just with evaluative judgements? Possibly, but our claim here is limited. We focus on how this view gives a better rendering of where subjectivity and experience into the semantic anatomy of restricted and unrestricted judgements.

In subsection 5.2.1 we present Merleau-Ponty's analysis of operative intentionality, and how he sees the relation between operative and thetic intentionality. In subsection 5.2.2, we explore how both aspects of intentionality, the thetic and the operative, are at stake in the production and interpretation of evaluative judgements. We give a condensed presentation of the notion of affordances in subsection 5.2.3. Then in subsection 5.2.4, we argue that evaluative judgements signal our responsiveness to relevant affordances of (more or less determined) objects, agents, or aspects of our environment. Finally, in subsection 5.2.5, we argue how this picture accommodates intersubjective understanding of evaluative judgements, how it renders evaluative (dis)agreements possible and meaningful.

Are we confusing semantics and phenomenology? This is not a confusion, it is a crossing. We are trying to build a bridge to deal with a problem coming from semantics aided by considerations and distinctions made by phenomenologists. The step we make in this section is to constitute the soil on which it is possible for evaluative judgements to be meaningful. We argue how their contentfulness is made possible by prelinguistic structures related to gestures and other primitive physical behaviour. Evaluative judgements are uttered by embodied agents whose intentional states do not just consist of an information structure but which are defined by an affective structure. What we do in this section is to try to spell out, conceptually, how to specify such intentional state.[40]

[40]Merleau-Ponty is most commonly re-visited by those who are skeptical of any formal enterprise concerned with cognition. Still, we believe that we do not leap into inconsistency

5.2.1 Operative intentionality

Merleau-Ponty presents and discusses the role of thetic intentionality in the context of his revision of Husserl's distinction between thetic and operative intentionality. Merleau-Ponty re-appropriates the notion of operative intentionality, giving it a different role and status than Husserl did. In operative intentionality, the traditional idea of intentionality as directedness is enriched with the notion of projection. The aboutness of our conscious experience establishes a relation with a partial and dynamic construction of the world. In Merleau-Ponty's words, we should start by "considering consciousness itself as a project of the world, meant for a world which it neither embraces nor possesses, but towards which it is perpetually directed — and the world as this pre-objective individual whose imperious unity decrees what knowledge shall take as its goal".[41]

Operative intentionality, a form of non-positing consciousness, is manifested for instance in our unreflective engagement and dealings with objects in our environment, like grasping a mug or riding a bike.[42] At work in such cases isn't reflex — as in the adaptation of the eye pupil's size to light — but operative intentionality, a pre-reflective *know how* directed to the real and concrete world spontaneously present to the subject. It is a category of behavioral phenomena between the physiological and the cognitive, irreducible to both muscular and cognitive descriptions.[43]

What is the difference between movement as an intentional act, and as mere

ourselves when we sketch a formal model for the semantics of evaluative judgements, as we shall do in chapter 6. The objections Merleau-Ponty voices against the "logician" are addressed to a logician committed to disembodied intentionality. "The logician" focuses on logic as the science of constituted truth and objective thinking. (Cf. Merleau-Ponty [1945], p. 56-7) Logic characterised this way is strictly and only focused on thetic intentionality. "The logician knows, on principle, only positing consciousness, and it is this postulate, this supposition of a wholly determinate world, of pure being..." Merleau-Ponty [1945], p. 318. We believe that the boundaries of what makes sense can be pushed back, so that the logician may take into consideration experiences which involve our affective grip.

[41] Merleau-Ponty [1945], Preface, p. xx.

[42] Here is a partly terminological, partly philosophical digression concerning whether operative and motor intentionality are the same concept in Merleau-Ponty's philosophy. In our interpretation, they are different but related concepts. Motor intentionality is specifically related to motility as one specific manifestation of operative intentionality, one which plays a prominent role in Merleau-Ponty's own work and in the reception of it in the Merleau-Ponty's work in the development of the trend now known as the Embodied and Embeded Cognition view. The study of movement as a phenomenon provides raw material for a description that displays the intentional dimension of embodied agents. Dreyfus and Kelly [2007] and Rietveld [2008] give enlightening reconstructions and make interesting uses of this notion. However, and perhaps as a consequence of a mere terminological shuffle, the distinction between motor and bodily intentionality seems not to be drawn as sharply as it could be. (See fn. 30 in Rietveld [2008].) The distinction as we propose it here deserves extensive discussion and requires a fair amount of textual evidence, none of which fit here, but which surely will receive our attention in the future.

[43] Cf., Kelly [2010].

reflex?[44] The phenomenological description through which Merleau-Ponty elaborates his analysis the intentional dimension of movement by contrasting the morbid case with the non-morbid one. Merleau-Ponty describes certain pathologies described by empirical psychology as forms of psychical blindness, which are related to a subject's difficulty in making abstract movements, like gestures or mimicry, which lack of an apparent goal. Describing Schneider, a war veteran who suffered a a traumatic injury to the brain incurred during trench warfare in the First World War, Merleau-Ponty says: "If the patient [Schneider] is ordered to shut his eyes and then perform an abstract movement, a set of preparatory operations is called for in order to enable him to 'find' the operative limb, the direction or pace of the movement, and finally the plane in which it is to be executed."[45] Thus, he concludes that in the morbid subject the ideal formula of movement is given separately from the blind attempts to perform it. Movement for the normal subject is movement and, at the same time, consciousness thereof.[46] Consider the corporeal consciousness of movement needed in order to take a shovel for digging a hole.[47] Here, movement and action are preceded, made possible by a bodily know-how which is intentionally directed to an object, the shovel, and to the world, the soil, in a certain way from the very moment in which it is activated.

Merleau-Ponty argues that while Husserl considered operative intentionality a collateral phenomenon and saw thetic intentionality as the culmination of the powers of an intentional agent, one should take operative intentionality to be the very condition of possibility of thetic judgements. While the former characterises our thetic attitudes, the latter "produces the natural and antepredicative unity of the world and of our life, being apparent in our desires, our evaluations and in the landscape we see, more clearly than in objective knowledge, and furnishing the text which our knowledge tries to translate into precise language".[48] A concrete example that illustrates why Merleau-Ponty's phenomenology takes operative intentionality to be fundamental for thetic intentionality is the following. In the example of the corporeal consciousness of movement needed in order to take a shovel for digging a hole, the intentional act of digging is animated by thetic consciousness by which I know that this is a shovel, what a shovel is for and why I take it in order to dig a hole somewhere. This intentional act is, in its turn, made possible by operative intentionality giving me certainty that I have a body, that I can move it, that my hand is fit for gripping a shovel, that I have enough strength, etc. This form of intentionality is given by a basic "I can" rather than by the traditional "I know that". The experienced world is apprehended by the lived body according to the possibilities for action we are capable of carrying out.

[44] This distinction is already explored in Merleau-Ponty [1942].

[45] Merleau-Ponty [1945], p. 126.

[46] "The plunge into action is, from the subject's point of view, an original way of relating himself to the object, and is on the same footing as perception." Merleau-Ponty [1945], p. 127.

[47] Here we are following Smith [1988].

[48] Merleau-Ponty [1945], p. xx.

It is important to note, as Merleau-Ponty himself does, that "It is not easy to reveal pure motor intentionality: it is concealed behind the objective world which it helps to build up."[49] And although examples of physical activities involving coordination and rhythmics, like dancing or sewing, clearly manifest an intelligence which involves our body as a task-oriented system, mostly any action of the lived body will also feature thetic intentionality. Sewing or knitting requires a physical ability that one indeed has to be drilled on, to acquire by practice and repetition, lots of seamstresses nowadays buy magazines at kiosks where they can find patterns, instructions, measurements, etc. Conceptual, embodied, situational, cultural layers intermingle in almost all intentional acts.

5.2.2 The operative and the thetic in evaluative judgements

Sense (noun): one of two opposite directions
especially of motion (as of a point, line, or surface).[50]

The epigraph suggests the move we wish to make. We want to integrate this entry of the definition of *sense* to the conception of meaning which we think is appropriate to accommodate the semantics of evaluative judgements. The bottom line of our analysis is: linguistic aboutness is not only related to the description of possible states of the world, or possible perspectives of people about those possible states. Language also expresses our situation in the world as a field of possibilities for the lived body, a way we are directed to our environment. Thetic and operative intentionality are intertwined in our judgements: information and affect are traded every time we offer or learn a new determination, and for this intentionality needs to get embodied. Embodied intentionality should make room for the affective dimension of meaning, and still accommodate the informational trade that is typically conceptualised via disembodied intentionality.

Affect lies somewhere between automatic response and representation: "Man is a permanent *sensorium commune*, who is affected now from one quarter, now from another."[51] The morbid case of Schneider is telling of the role played by the affective dimension in the normal subject. For this patient, people and things have no significance, no emotional valence. "Faces are for him neither attractive nor repulsive, and people appear to him in one light or another only in so far

[49] Merleau-Ponty [1945], fn. 94. This appears in a very interesting and long footnote, in which Merleau-Ponty discusses how apraxia has been presented by Liepmann as a case of failure of motor intentionality, but where the arguments given to establish the case have remained within the cast of the intellectualist vs. empiricist view, making the artificial separation between pure thetic consciousness and and objective body, thus actually leaving no room for operative intentionality which is a phenomenon of the lived body.

[50] From http://www.merriam-webster.com/dictionary/sense, last accessed on 5 May 2015.

[51] Merleau-Ponty [1945], p. 253. It would be interesting to investigate the relation with this and the *sensus communis* in Kant [1790] and in Descartes' Med. VI.

as he has direct dealings with them, and according to the attitude they adopt towards him, and the attention and solicitude which they bestow upon him. Sun and rain are neither gay nor sad; his humour is determined by elementary organic functions only, and the world is emotionally neutral."[52] Through operative intentionality, we configure and navigate our affective milieu, which by itself does not posit determinate qualities in objects but which makes it possible to achieve such determinations. Herein partly lies the meaning of evaluative judgements.[53]

Embodied intentionality has to make room for the intertwinement of the informational and the affective dimension. Intentionality as the semantic content of linguistic expressions is the signaling of the action possibilities and impossibilities through which we navigate. True sentences are those which are established at the confluence of our action possibilities, those where the experience of an encounter with a thing becomes irrelevant, those where the world appears as

[52]Merleau-Ponty [1945], p. 182.

[53]Note that Merleau-Ponty's own concern with evaluations is not strictly semantic in nature. He does have an interest on how language ('parole') is possible and in the key role embodiment plays there, which reassesses rather than assumes a simple distinction between semantics and ontology. But he does not deal systematically with the linguistic expression of evaluations. Actually, the Merleau-Pontyian line about the significance of adjectives goes quite far. He claims that "It is my body which gives significance not only to the natural object, but also to cultural objects like words." Merleau-Ponty [1945], p. 273. For our purposes, we do not need to go follow him this far, for Merleau-Ponty's view seems to make interesting claims for which we would not be able to offer no decisive support:

> If a word is shown to a subject for too short a time for him to be able to read it, the word 'warm', for example, induces a kind of experience of warmth which surrounds him with something in the nature of a meaningful halo. [...] It is not a matter of reducing the significance of the word 'warm' to sensations of warmth by empiricist standards. For the warmth which I feel when I read the word 'warm' is not an actual warmth. It is simply my body which prepares itself for heat and which, so to speak, roughs out its outline. (Merleau-Ponty [1945], p. 273)

(He gives similar examples about *hard, damp, red*. It is interesting to note that all these terms are adjectives, which suggests that our own claims may in the end not be so far from Merleau-Ponty's own ideas after all. Interesting as though this observation may be, its exegetical nature puts it beyond the aim of our chapter.)

This indication can be related to how embodied cognition broadens the notion of cognition to cover our perceptual, cognitive, and motor capacities as capacities that depend upon features of the physical body. Whether this claim can or should lead to the discovery of motor control processes underlying the semantic processing, active or passive, of evaluative judgements, is a claim that goes beyond the conceptual analysis we offer here.

Even though we will not go as far as endorsing this claim as a neurocognitive hypothesis, as something that happens upon the mere hearing of a phonological pattern, we believe there is a key observation in this quote. That is, that when we hear an evaluative judgement like *This is warm*, this generates expectations about the object. This bodily roughing out of a plan may be read as a way of describing the anticipation raised or present in an addressee which accepts this utterance. The role of expectations of this sort, these bodily anticipations, will be spelled out in below.

constituted according to a theory and not as it reveals itself to the lived body. True or false is not what we cope with, but what we distill as systematic and subject-independent in what we cope with. Meaning consists of intertwined and complementary dimensions: a conceptual one and a lived or phenomenal one, where the latter makes the former one possible.[54] While analytic philosophy of language and natural language semantics have developed powerful analyses and tools to tackle the former, it has remained largely silent about the experiences underlying the institution of disembodied intentionality. As operative intentionality endows significance to the environment in which we inhabit, language signals the projections of the lived body, and gradable adjectives play an important role in this.

Consider a simple exclamation: *This is heavy!* In absence of all information, there is a good deal of evaluation that can be made. I may not know the exact weight of the thing, or what sort of thing it is, but when I carry it I may be overwhelmed and exceeded by the effort. Our evaluation simply expresses the action possibilities at reach. The action possibilities which are expressed by evaluative judgements are not explicit plans or meditated decisions but rather operative sketches of the things with which we interact. Now think of *That is spicy!* as said of something one tries without knowing what exactly one is eating. The addressee learns that the edible thing in question tastes in a certain way but learns nothing specific about the objective constitution of the thing in question. Strength and sharpness are felt, not believed or inferred. Thetic and operative aspects are intertwined because extreme spiciness may preclude a thing's edibility, and because spiciness is chemically correlated with capsaicin. A similar Janus-faced content is given by *That is sour!* The thing's constitution is related to its tasting sour, but we do not learn something specific about it, only how it affects someone who eats it. Sourness is a sort of sharpness, but so is bitterness. What is the difference between these two? One way to make it is to specify an exemplary case, like naming lemons or coffee, respectively. But this helps only if one has tasted lemons or coffee, and if one is able to identify these, to pick out the referent of *lemon* as opposed to *fig*.

Think now of *That is tasty!* Someone who hears this learns that the edible thing in question is appealing. How does it taste? Nothing is specified. What kind of thing is this? A tasty thing. Is this related to the thing's making? Of course it is! But it is also related to how we are attracted or repulsed in our eating experiences whose valence relies on not just gustatory input, but also on input from the other senses (most notably olfactory and tactile, but also visual and possibly also auditory), on information we have about a thing's ingredients and elaboration, on memories and on physiological associations (like rejecting a sort of food with which we once got poisoned). To say whether something is tasty, then that thing must be edible, but for something to be edible it must be fit to

[54] Cf., Park [1979] who distinguishes between "sens vécu" and "sens conceptuel".

be eaten, which takes us again to the operative side. We do not wish to try to give any kind of systematic reduction of concepts to action possibilities here, that would be totally beyond our interests and needs. All this is to stress that one should better see the operative and the thetic as being aspects of intentionality than as being two exclusive or categorically different sorts of content.

As soon as we offer a nominal determination of the object under assessment, the thetic becomes present in a more patent way. Consider these examples: *This suitcase is heavy*, *These plums are sour*, *This cake is tasty*. These evaluations contain more precise information, for understanding these utterances requires that one is able to identify suitcases among different pieces of luggage, plums among fruits, and cakes among desserts or pâtisseries. But is this information central to the judgement in question? I may be wrong about whether this is a suitcase or a trunk. Still, if I have experienced great effort when carrying it, the predication holds even if the identification fails.

How about claiming *This suitcase is heavy* not after lifting it but after reading the figures on a scale at an airport? Apart from the thetic component involved in the identification of the object as a suitcase, we may also see that the numbers on the scale mean something only if we are familiar with the measurement convention. But how do we become familiar with such conventions? The convention you are most familiar with tells you something about the weight of the suitcase because you are used to operating with it. But not only this, you also have a feel for what one kilogram amounts to. When you discover that your suitcase weights 30 kg because you read the figures on a scale, you may not have a direct bodily understanding of the heaviness of the object, but you do have an indication of what possible bodily experiences it might induce. Does this mean that some evaluative judgements are reducible to thetic intentionality and others are not? No, it does not, for the conclusion that the 30 kg suitcase is heavy requires that we have a sense for what 1 kg or, say, 10 kg weigh. Suppose the scale uses a different convention from the one you are used to: do the numbers you read mean something now? Only if you can translate this to the scale you know and, again, whether you have experience in manipulating objects whose weight is given measured in that scale. Suppose the scale indicates that the suitcase is 100 kg heavy, you think there must be a mistake. You try to lift the suitcase, you manage to do so, and from that you conclude that the scale is not right. There are not two meanings of *heavy*, the standardised and conventionalised procedure of measuring things with scales has become sedimented and integrated with the primary, affective layer, but the affective layer is still there, still present, underlying every apparently merely thoughtful protocol.

Unrestricted judgements impose a (more or less) sparse and indeterminate structure[55] based on not merely on linguistic grounds but how we, not in partic-

[55]This is reflected in the choice of a partial setting for the semantics presented in the next chapter.

ular you or I but any embodied agent, is expected to cope with the object under assessment.[56] The structure is surely less determinate in the case of a strongly evaluative adjective like *tasty*, a bit more determinate with a weakly evaluative like *tall*, for when I learn that John is tall, then I will call *tall* anyone I compare with John who happens to be taller than John. With taste, things are less homogeneous. A tasty cake and a tasty wine are hardly comparable, and calling a certain cake tasty does not entail that I should call all similar cakes *tasty*.

What notion of judgement can we distill from what we have said?[57] Is a judgement a cognitive operation? Yes, this indeed is our claim, but the claim holds within our appeal to an embodied view of cognition, if we consider cognition as an integrative activity of the lived body, which involves both bodily and intellectual capacities, operative *and* thetic intentionality. Judgement is neither an act of understanding, nor a pure sensory activity. The body as a system of possibilities makes evaluative judgements possible, and it is these action possibilities which we signal. We do not refer to them as something that is the case, on a par with facts that we measure and strictly classify. Operative and thetic aspects of intentionality are interlocked in the meaning evaluative judgements, which also show clearly that one aspect cannot be reduced to the other. They are not separate layers of content or different kinds of states. The operative makes the thetic possible but it does not simply vanish from language. It remains, and the case of evaluative judgements makes it visible.

The claim that we need an embodied turn in semantics needs to be made more precise. One of the fundamental strengths of disembodied intentionality is the detailed account it provides when articulating contextual and compositional elements in the interpretation of sentences. Can we get anywhere close to this level of description? We can if we have simple building blocks that are suitable, that allow us to integrate informational and affective aspects of meaning.

5.2.3 Zooming into affordances

Our claim is that affordances, or rather a certain analysis thereof, can be fit for the task at hand. Affordances are not abstract possibilities, plans, or desires but rather summonings, felt tensions, ways in which we are drawn to respond as complex intentional agents. The concept of an affordance will let us spell out Merleau-Ponty's action possibilities in a way that shows how the thetic and the

[56]The mountain is great or small to the extent that, as a perceived thing, it is to be found in the field of my possible actions, and in relation to a level which is not only that of my individual life, but that of 'any man'... Merleau-Ponty [1945], p. 513.

[57]Note that Merleau-Ponty distinguishes between perception and judgement when he criticises intellectualism as a position assuming that perception is thetic, when he argues that "perception is not an act of understanding". (Merleau-Ponty [1945], p. 54) Here we are not reproducing his critical view but rather gathering the lessons he draws to enrich the idea of judgement in our semantic analysis.

operative can and do come together.[58] Affordances can be seen as building blocks of embodied intentionality, where the "I can" and the "I think" meet.'[59]

Gibson introduced the notion of affordance in his discussion of visual perception.[60] The ecological approach he took approaches perception as an interactive process between agents and their environment. Gibson introduced the concept of affordances to refer to the way in which animals are sensitive to the possibilities for action provided by substances, surfaces, objects, other creatures, and other aspects of their milieu.[61] Typical examples of affordances are those of a rigid surface which affords support to agents of a certain mass, or that of a leaf which affords nutrition to an ant and blowing to a child. In such cases, there is a relation between a concernful agent and an aspect of its environment, a relation in which neither subject nor object is primary or dispensable. Before we can perceive a chair or a table, we are first drawn and steered by action possibilities offered by (among others, physical) qualities of things, given our own configuration. A plastic stool may look support-able or stand-on-able to me, but not to my father. A leaf may look nutritious to an ant, but not to me.

Although affordances have been employed mainly in relation to motor action they can also be seen more generally as action possibilities provided by the environment to an agent embedded in a sociocultural setting, for our abilities are shaped not just by biological factors but also, and very strongly, by stable patterns of social and cultural interactions.[62] Considered this way, it is easier to see how affordances play a role in cognition beyond the motor case,[63] and how linguistic expression may signal our selective and normative responsiveness to action

[58]Common influences on Merleau-Ponty and Gibson are, e.g., Koffka and Gestalt psychology. Plus, Gibson was familiar with Merleau-Ponty's work (Heft [2001], p. 161).

[59]This will show why we believe that our take on affect has a Spinozian trait, given that he takes affects to be related to "the body's power of acting is increased or diminished... together with the ideas of these affections" (Ethics, Part III Definition 3). Cf., chapter 4, fn. 76.

[60]In an oft-cited passage where the notion is introduced, Gibson says that, "The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is found in the dictionary, but the noun affordance, is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way no existing term does. It implies the complementarity of the animal and environment." Gibson [1979], p. 127.

[61]Heft [2001], Chemero [2003].

[62]Cf., Rietveld and Kiverstein [2014]. The authors conceptualise affordances as "possibilities for action the environment offers to a form of life, and an ecological niche is a network of interrelated affordances available in a particular form of life on the basis of the abilities manifested in its practices — its stable ways of doing things." (p. 330) For reasons of simplicity, we keep our own reconstruction somewhat more simple, sticking to less technical Wittgensteinean terminology, mainly because introducing these notion like "form of life" properly would deserve space which is unavailable here. Affordances have features in common with the kind certainties like *This is a hand* or *I am in pain*, and only in a derivative sense can we related them with the culture-specific certainties like *I have not been to the moon*.

[63]As suggested in a series of recent papers: Rietveld [2008],Kiverstein and Rietveld [2012],De Haan et al. [2013],Rietveld and Kiverstein [2014].

possibilities offered by the environment.

Does this picture lead to relativism? Because if it did, we would not get the stable core of intersubjective sharedness needed for linguistic meaning to be possible. Perceiving and responding to an affordance requires an ability that is socially grown.[64] Affordances are independent from individual perceivers and actual responses, but dependent on a community of skilled perceivers. They are defined with respect to abilities acquired within sociocultural settings. This is how we say that an individual's specific responses in a given situation *fail* to meet the solicitations of her environment. When Alf is drunk, he cannot climb stairs, but stairs are still climbable to those with the right abilities (and not, for instance, to a young infant). Likewise, I may not be able to tell a beech from an elm, but someone with the proper training does. Responding adequately to an aspect of our environment is set by a history of attempts and responses of the community to which we belong. The individual and the social levels are involved here. Individuals can show spontaneous responses but social feedback can affect them.[65] So the adequacy of a response is given by the interaction of an agent with a thing *and* with other agents in her community.

It is important to note that while agents are potentially responsive to all affordances available in a situation, they respond only to those that are relevant to them. So relevant affordances are a subset of existing affordances, i.e., those that an agent is properly trained to respond to and which solicit the agent in a situation, given her concerns. Water affords quenching thirst; this is certainly relevant for us when we are thirsty (though we often drink when we are not thirsty, e.g., if someone offers a glass of water I may take it anyway). An individual may be indifferent to certain affordances not only if she lacks skills and training, but also depending on her interests and concerns.[66] Our contention is that evaluative judgements let us signal *relevant* affordances, i.e., those affordances that at least one of the interlocutors in a conversation is responsive to. As linguistic expressions, they allow us to indicate the salience of certain action possibilities.

An affordance "cuts across the dichotomy of subjective-objective".[67] We analyse the notion of affordance further in order to lay this bidirectionality bare. A useful conceptual distinction comes from Frijda's analysis of emotions as func-

[64] "We suggest then that affordances are not relative to the abilities of a *particular individual* who actually perceives or detects the affordance." Rietveld and Kiverstein [2014], p. 337 (our emphasis).

[65] An example noticed in developmental studies shows that, "The child starts out by reacting to the world in her own terms. She finds a toy alluring, for example. She then perceives her mother relating to that toy with disgust or fear. According to the mother's reaction, the toy is not so alluring. What then happens is that the toy loses its appeal for the child herself. Its meaning has changed because of what it means to someone else. ... The discovery is a discovery in action and feeling, rather than a discovery in thought." (Hobson [2004], p. 73, cited in Rietveld [2008], p. 991)

[66] Cf., Rietveld and Kiverstein [2014].

[67] Gibson [1979], p. 129

tional provisions,[68] according to which an emotion involves an appraisal of an aspect of the environment which impacts on the agents action possibilities with a change in the agent's action readiness modes that are demanded from her. An agent's lived experience of the demands of a relevant affordance determines her appraisal of the thing or event she assesses.[69] This appraisal can be seen to impact on the agent's action readiness by bringing certain action possibilities to the foreground.[70] Action readiness modes are different ways to establish, maintain or modify relationships between agent and object. Some examples are, for instance, approach as tendency to get closer in order to possess, use, enjoy or inspect; avidity as tendency to act ardently, enthusiastically, in response to the pull of a craving; rejection as tendency to reject or break contact, or indifference as tendency not to pay attention to.[71] We will not try to provide here an exhaustive list, our point is to illustrate the sorts of patterns of gestures and behaviour that evaluative judgements may signal. These patterns of responsiveness may be withheld, remaining at the level of a feeling and not having appreciable motor consequences.[72] Note that we do not want to argue here that appraisal and action tendencies are more basic or primary than affordances, but rather that they can help us see how subject and object are indissoluble in them.

Under the analysis we offer here, affordances should not be reduced to either a judge's dispositions,[73] or to a dispositional property of the environment. As Chemero notes, "[i]ndividuals with abilities are supposed to behave in particular ways, and may fail to do so",[74] but dispositions can never fail, like the solubility of sugar does not fail when conditions are not the suitable ones.[75] Likewise, if we take an affordance to be an object's causal disposition (to burn, to attract, to disgust), the affordance will necessarily actualise related actions, given suitable circumstances.[76] However, when we say *Careful, it's hot!*, we warn the addressee

[68] Cf., Frijda [1986, 2007]

[69] Cf., Bennett and Hacker [2003], p. 217.

[70] Cf., Ellsworth and Scherer [2003], Frijda [2007].

[71] Some other examples from Frijda and Moffat [1993]: Avoidance: tendency to avoid, flee or protect oneself. Attending: tendency to observe, watch or think about. Antagonism: tendency to remove obstacle, hurt, oppose or resist. Interruption: tendency to interrupt ongoing action. Apathy: generalised absence of action readiness and lack of responsivity. Excitement: tendency towards action that has no direction. Passivity: absence of goals for action. Inhibition: presence of action readiness but absence of action. Rest: absence of action readiness and acceptance thereof.

[72] Cf., Frijda [2010], p. 573.

[73] For a contrasting voice, see Turvey [1992] or Michaels [2000], who holds that affordances are dispositional properties of the environment which are complemented by the agent's action tendencies.

[74] Chemero [2003], p. 189.

[75] "[E]ven on a firm surface, with no wind, while perfectly healthy and sober, I may fail in my attempt to climb a step that affords climbing for me. " Chemero [2003], p. 190.

[76] As Zipoli-Caiani [2014] notes.

so that she does not get burnt, so that the related actions do not get actualised.[77] The addressee has picked up the signal, has recognised the object's demands without having to check that the related actions do get actualised.

Affordances, we believe, can be seen as the basic building blocks for embodied intentionality. Evaluative judgements convey how someone is affected, how others may expect her to act, and how she expects others to act in the world about which she has more or less information. Signaling an affordance indicates this relation, it points out salient opportunities and challenges of the world as a field of action possibilities, and not properties of objects which are posited through a neat distinction between object and agent. This signaling is what we take gradable adjectives and, as a consequence, evaluative judgements to do.

5.2.4 Evaluative judgements signal affordances

Our claim is that we linguistically signal relevant affordances, i.e., how we are moved, and that gradable adjectives play an important role in this. We evaluate to say how we are moved. Evaluative judgements provide some information but they first and foremost signal patterns of action readiness issued by our appraisals, and therefore allow the coordination of action. Operative and thetic aspects of intentionality are brought together by affordances, and are inseparable when we try to account for what we say when we judge a thing to be high, expensive, spicy, or tasty. Determinations start out with how we are moved before we can lay down rules and have our adjectives denote degrees or draw lines among comparable objects.

Gradable adjectives are mostly associated with aspects of things, people, anything we can name, aspects which are special because they can vary in intensity. Characteristics of things are features we are recurrently attentive to, and which give rise to recurrent patterns of action possibilities. Gradable adjectives express our affective orientation in the world by signaling recurrent bundles of patterns of action readiness solicited by our environment. A thing's relevant affordances solicit a certain responsiveness, not just any reaction, but one that our interaction demands us to provide. A high mountain demands effort when climbed, more to untrained climbers than to expert hikers. A hot fever demands care, a hot tea offers comfort in the evening (but if it is too hot, you will be unable to drink it). A smiling face invites us, a threatening gesture repulses us. To be solicited is

[77] In Crespo and Fernández [2011], we offered a dispositional reading of unrestricted judgements. For agents with the required abilities, the cake should be tasty. This analysis is not quite suitable. With a generic binding of an agent variable, we require that *This is tasty* means that any agent that is able to undergo a phenomenological experience of taste, it holds that the cake should be tasty for those agents. But as indicated in various footnotes in preceding chapters, this dispositional approach requires actualising circumstances. The problem is that evaluative judgements can and often do function as warnings, so they do not require actualisation to be meaningful. This approach, similar at some level to Hirvonen [2014], goes too far in its naturalistic aims at the expense of normativity.

contingent on the fitting of an agent's skills and concerns, her epistemic state, and the accidental features of the state of affairs. But how we ought to respond when solicited by a relevant affordance is not determined by our contingent circumstances. This 'ought' is neither logical nor metaphysical, for we may fail and we may encounter cultures where the same situation gives rise to a rather different pattern of responsiveness. But if we signal an affordance, the addressee comes to expect not just any behaviour, but one befitting the thing's solicitations.

Are we suggesting that whether Mont Blanc is a high mountain depends on how one climbs it?[78], or whether a cake is tasty depends on a judge's gustatory functions? If this were our suggestion, we would be making no step further with respect to our starting point. No, what we are suggesting is that gradable adjectives signal recognisable sorts of action possibilities issued by our relation with objects and other aspects of our environment. What *high, hot, spicy, tasty* mean does not hinge on the concrete reactions of one or other agent, but rather on how shared intercorporality shapes our similar action tendencies towards what we face, feel, and taste. The patterns that you and I and other agents in our social niche associate have to be the same, or sufficiently similar.

How about the comparative form? A higher note, mountain, or rent present an increase, a change in intensity. In the intensity of what? Pitch, height, and price would be a natural answer. One can measure an interval and then claim that this is what the adjective denotes, but first one has to be able to see the transition and recognise what is compared as being of the same sort: two notes, two men, two rents. With the aid of more or less sophisticated measurement instruments, we can correlate change with discrete steps in a transition by analysing it into units, a subexpression of change whose stability we can identify with some constant manifestation of the quality. It is true, we can compare two things by measuring their difference. But not every comparison involves measurement! For a cake to be tastier than a pie, intensity concerns how we are drawn and compelled, an experienced precedence. One may find out through empirical research[79] that there is a correlation between the experienced precedence and amounts of neuronal firings, endorphines, or any other difference concerning the objective body. But such difference is not what the comparative *tastier than* denotes.

Gradable adjectives can be embedded under the attitude verb *find* to form restricted judgements, to express our own appraisal of mountains, infusions, or food, the experiences of the lived body. Whether I find a mountain high, a tea hot, or a dish spicy, my experiences are endured rather than observed. A linguistic expression of these affective inclinations commits us to showing patterns of action readiness which are in accordance with what we say or, to put it less stringently, not to show incompatible patterns of action readiness. Third-person restricted judgements put out in the open the commitments of others to show

[78]That would be queer, as exclaimed by Wittgenstein [1958a] II, p. xi.

[79]See, e.g., Bartoshuk and Snyder [2004].

certain patterns of action readiness, by which their appraisals come to be shown. If we have seen that the agent in question has shown incompatible patterns of action readiness, we may challenge this report, though this is no proof that the judgement is incorrect (the agent's reactions may have changed in the meantime). What are incompatible patterns of action readiness? Consider, for instance, motor relaxation and high autonomic arousal.[80] Conflicting emotions and complex states may lead us to swing between attraction and repulsion, or to feel that our attention is demanded but to see it interrupted. While these states do take place, they do not show that, e.g., attraction and repulsion are compatible, but rather that the affective aspect of our environment is often neither smooth nor simple.[81]

The crucial mark of unrestricted judgement is that, in contrast to *find* embeddings, they do not report one or other person undergoing an appraisal or showing patterns of action readiness, what we do is to posit the affordances as being offered by the object under evaluation. Unrestricted judgements like *This is high, expensive, spicy, tasty, painful* signal our responsiveness to relevant affordances of an aspect of the environment. If we say the cake is tasty, for instance, this signals that the cake solicits readiness to consume the cake and perhaps willingness to accept more. As a solicitation of the cake, we expect that anyone as experienced and accultured as we are will similarly respond to it.[82] If we have not tried the cake ourselves, and without any further information about the cake's composition or the oddness of the speaker's preferences, the unrestricted evaluation lays down expectations about our eating and relish. The same goes for a small trunk on which we paste a sticker saying *Heavy* because it is filled with books. Anyone who reads the sticker is supposed to be warned about the demands of the piece of luggage, and although someone very experienced may be able to carry it, her whole bodily coping is influenced by the sticker's warning. That there are people[83] for whom such a load would be insignificant can easily be recognised. But we recognise these people as being exceptional, and their action possibilities are singular and special.

How much should we worry about which sorts of action readiness patterns are associated with different gradable adjectives? For two reasons, we think we can postpone worries of this sort. On the one hand, if our goal was to provide

[80] Cf., Frijda [2010].

[81] This discussion of incompatibility is also present in expressivism. We discuss similarities and differences with our account in subsection 5.3.3.

[82] One could perhaps think of Lakoff [1987] objections against Gibson's affordances, and wonder whether these are not equally applicable to our case. Lakoff rejects this notion mainly because he interprets it as being too limited, relying on a notion of environment which is "not the kind of world-as-experienced that is needed in order to account for the facts of categorization." (Lakoff [1987], p. 216) But the reconstruction of the notion of affordances we have relied on is more encompassing than Lakoff's interpretation of Gibson, thus allowing the environment to be less monolithic and common to all people, and to accommodate categorisation which depends on experience, science, and culture.

[83] e.g., participants of the World's Strongest Man contest.

a thorough lexical semantics, the challenge would be enormous and it would require a systematic empirical approach, going far beyond what we can achieve here. Our goal being to focus on the semantics of the evaluative judgements we are concerned with, our worries should be limited to analyse the differences between unrestricted and restricted judgements, and to shed light on the reasons why some gradable adjectives can be embedded under *find* while non-gradable ones cannot. On the other hand, patterns of action readiness are, as it were, one side of the coin. The other side are expectations, the normative prospect of action possibilities of this or that sort. These are the key to the interpretation of evaluative judgements and they will allow us to have just enough resources for what we have to deal with. This will be exploited in chapter 6.

Important for us is that affordances are very flexible, to the extent that they can accommodate both thetic and operative aspects of intentionality. Our lived experience does involve objects, objects and theories which require fixed criteria and refined measurements. With judgements like *This sachertorte is tasty* or *Alf finds this sachertorte tasty*, we learn that the cake the speaker refers to is thought to be a sachertorte, and in the restricted one we get to know something about someone named Alf. When does a something afford being called a sachertorte? It depends on whether a recipe has been followed. And when we make evaluative judgements not concerning a specific thing but a kind, like when we say *Sachertorte is tasty* or *Alf finds sachertorte tasty*, the assessment concerns a cake baked according to a specific recipe. Items of sachertorte are concrete and singular, but affordances are bestowed by, and can be imputed to, anything we can cognise: sorts of cakes, kinds of fruit, men grouped by nationalities, objects grouped by shape or composition, ideas, memories, anything we can name. Affordances are the flesh out of which we constitute objects,[84] and conceive stable properties once we have set up intersubjectively accessible criteria, a rod in Paris or a recipe reconstructing Franz Sacher's 1832 creation.

So people, context, and world as we experience it when we make evaluative judgements are not only structured by how we are able to act in a situation, but also through our beliefs, knowledge, desires, intentions, hopes, and doubts. Our evaluative judgements partly concern information we have and to that extent, these judgements can be right or wrong or inaccurate. But as far as our coping goes, accuracy has to do with how responses fit a solicitation, and not whether our (partial) representations are correct. Only in some specific contexts may we sensibly take the gradable adjective involved to denote a degree or a delineation dependent on a contextually set standard. These are very specialised uses which are indeed present and pervasive in how we speak, but this is not where modeling should start. Lines are drawn once we can talk about heights or weights, when a reason or purpose calls for this.

[84] A way to account this is that one can see objects as being stable bundles of affordances, as in Gorniak [2005]. We do not want to go as far as this view right here.

What we say is that evaluative judgements have specific semantic contents. Are we hereby accepting or denying that experiences like tasting a cake or lifting a suitcase have representational contents? Do we, e.g., codify and decodify a fixed set of patterns of action readiness making up a representation of the gradable adjective at hand? The question is pressing because affordances are generally taken to provide a non-representational pathway for intelligent behaviour.[85] Whether experiences are representational is an old contention, one that we would not want to delve into or settle here. It is, however, prudent to say that we do not believe that experiencing a tasty cake or a heavy suitcase requires that we have or produce a representation of our action possibilities.

If evaluative judgements signal relevant affordances but these judgements also involve claims which are not evaluative — e.g., whether a cake that is tasty is sachertorte, whether a man who is tall is called Alf —, does this mean that experiences involved in our evaluations are partly representational, and partly not? Our answer is not straightforward, for as we have tried to argue we believe that the fact that evaluative judgements signal affordances does not mean that they have no content, and because non-evaluative claims or subclaims need not be conceived representationally in order to do justice to their meaning. A clash in the semantic composition of evaluative and non-evaluative claims only arises if one insists in assuming that the semantics devised to tackle the latter is rich enough to deal well with the former, and if one resists the idea that a less traditional semantics can be rich enough to make room for all of it, for evaluative and non-evaluative discourse.

Embodied intentionality as we put it forward here takes our affective encounter with the world to be a primary layer on which the information we gain and lose is built up. The object and its empirically determined properties crop out as stable patterns, as action possibilities which endure across agents and across unique occasions, thus allowing us to identify rules and regularities fixing what counts as evidence to be such an object. So far, we have claimed that evaluative judgements signal relevant affordances. How is it possible to understand these judgements, to correctly interpret them, to reach successful communication? There must be some warrant for this achievement, for the sharedness how we associate patterns of action readiness with gradable adjectives.

5.2.5 Embodied sense coordination in conversation

How is dialogue — agreements, disagreements, or just any exchange — possible if evaluative judgements mean what we claim they mean? A usual way to phrase this issue is: how do linguistic agents, speaker and addressee, come to

[85] This is partly the reason why Good Old Fashioned AI opponents like Dreyfus drew on the notion of affordances, and this is as well the motivation of many in embodied and embedded cognition who have resorted to affordances. Merleau-Ponty's and Gibson's contributions are normally seen to provide grounds for "intentionality without representation".

share meanings? In the context of our reworking of the notion of intentionality, sharedness of meaning requires that the action possibilities signaled by Alf when he says that the cake is tasty or that he finds a suitcase heavy are those which Bea is made aware of. This should be possible even when, for some reason, Alf is in fact unable to eat more of the cake he is praising, or when Bea disagrees with Alf's assessment. To disagree, Bea should understand Alf's utterance. Understanding an evaluative judgement requires that we come to the right expectations concerning the speaker's actions, and her own expectations about how we and others are moved. Why do people disagree when it comes to whether something is tasty, expensive or boring? Coordination of action among embodied agents is, we believe, a cardinal point (surely not the only one). But for this to be possible, a great deal of agreement in valuation and action is presupposed.

Consider a few made up short dialogues:

(1) a. A: This is tasty!
B: Yes, it is!
b. A: This is heavy!
B: No, it's not!
c. A: This cake is tasty!
B: Yes, it is!

Correctly interpreting an evaluative judgement made by someone else amounts to understanding how the speaker is ready to act in response to the possibilities for action the environment offers. Unrestricted, the evaluation posits the affordance which sets up the expectation that speaker and others, all those with similar skills, will react to the cake or the suitcase in the same way. This positing is more like a sanctioning. The addressee understands the judgements if she sees that there's a claim as to the solicitations of the cake reaching out beyond the single speaker's case. When we understand *This cake is tasty*, we anticipate a host of possibilities for action solicited by the particular aspect of the environment which we identify as the cake.

This anticipation is not merely predictive, not just a contingent association, an empirical regularity. This is a normative anticipation: if the expectation is not met or, worse, if action possibilities shown are incompatible with those signaled by the adjective, the addressee's interpretation is conflicted. When the addressee cannot meet the expectations that are sanctioned, marking this with a denial is in order. Evaluative (dis)agreements are cogent: we communicate the possibilities for action we respond to because this allows us to coordinate our actions, to reach attunement at the level of how we are ready to act. A *cul-de-sac* is reached when our difference in responsiveness is brought out to the fore. The stagnation in some of our evaluative disagreements is not a sign of irrationality, but rather a mark of how we negotiate our shared lived world.

Consider these two pairs, (2-a)-(2-b) and (2-c)-(2-d):

(2) a. This is tasty... and I don't want anymore!
b. This is tasty... but I don't want anymore!
c. This is heavy... and it's easy to hold it!
d. This is heavy... but it's easy to hold it!

The simple conjunction of the two judgements is problematic (at least on the face of it, trying to keep focus and stress of sight to keep it simple). The oddness is removed when we use a contrastive like 'but'. This is not because to say that something is tasty, we ought to desire more, or that if something is heavy, we cannot hold it. But when we say that something is tasty, we do signal that the cake solicits in a certain way, likewise for the suitcase; while we may actually not feel like having another piece because we are full or on a diet, the first half of the utterance does create expectations released by the contrastive 'but'.

Our conception of understanding presupposes some agreement in action, an agreement of natural and social constitution.[86] The patterns that you and I and other agents in our social niche associate have to be the same, or sufficiently similar. Patterns of actions readiness can be (successfully or unsuccessfully) sanctioned only if a shared intercorporality allows us to expect similar action responsiveness from each other.[87] We understand evaluative judgments by comprehending the future and past action possibilities they express. Action possibilities are given to the lived body whose constitution, as we saw, depends on our shared intercorporality.[88] So communication is not a mere expressing and grasping of thoughts, and communicative competence is not just a matter of recognising the claims to truth made by others. Understanding is first and foremost played at the level of the concerns of the lived body, and communication involves a comprehension of our shared and non-shared bodily sensitivities. Evaluations say something about how we profile in our field of perception the objects, agents, and events which we cope with. This profiling reveals an object delineated along the action possibilities that each foreshortening brings along. Of course, and this was the point made in chapter 4, sec. 2, our claim is not that comprehending the gestures concomitant with saying *This is tasty* is enough to understand what the speaker means. The specific motor behaviour associated with our assessments are a public marker but neither a necessary nor a sufficient marker of the right expectations

[86] This reflects agreement in judgement in the distinction introduced in Wittgenstein [1958a], §242: "If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgments." This is the sort of agreement that is assumed for certainties. Cf., Wittgenstein [1969], §§225, 274, 298.

[87] "To describe embodiment as intercorporeality is to emphasize that the experience of being embodied is never a private affair, but is always already mediated by our continual interactions with other human and nonhuman bodies". Weiss [1999], p. 5.

[88] This dependence is limited: a necessary condition but possibly not a sufficient condition. There is a cultural and social dimension dependent but different from our intercorporality. "It is through my body that I understand other people, just as it is through my body that I perceive 'things'." Merleau-Ponty [1945], p. 216.

about what the speaker is prepared to do. The possibility of intersubjective understanding is not guaranteed in this case by equal access to a common realm of truths but by the shared character of the phenomenal field, of the physiognomy we delineate before a background.

Evaluative judgements turn out to have a very prominent role in maintaining horizon necessary for communication. Agents embedded in a by and large shared environment may not respond to an object's affordances at the same time, or may be differently skilled. Changing the other's mind involves changing her possibilities for action, involving the development of an ability: for instance, I may dislike a taste now but I may acquire it in the future, with some experience and possibly also some guidance. Some evaluative disagreements, e.g., those about heaviness, may sometimes be resolved by virtue of conventionalised practices that grow on top of our primary affective grip (e.g., the effort to lift things). To this extent, some evaluative disagreements involving comparatives may be easy to solve, when we have a method by which the dispute can be settled.

Agreements and disagreements presuppose understanding: we agree on how we should act given what we have said. We disagree when we are not responsive to the relevant affordance that our interlocutor signals. In the examples below, B reacts to signal that the responsiveness is not shared, which presupposes that she knows what kind of action possibilities are being put forth as being shared.

(3) a. A: The cake is tasty.
B: No, it's not!
b. A: This suitcase is heavy.
B: No, it's not.

To understand each other, we do not need to agree in each and every case. The background of agreement that makes language possible does not require us to always act in the same way, but to sufficiently share our lived world. We should agree on the sort of possibilities for action signaled by the adjective we use but we do not need to be equally responsive to each and every aspect of our environment. A misunderstanding occurs when we disagree on how we should act given what we have said. Non-understanding takes place when for the addressee, the object under assessment cannot possibly afford what the speaker signals.[89]

[89]Now isn't it problematic that the action possibilities associated with an adjective like *tasty* may be confounded with those associated with *hungry*?[90] What we call *heavy* may not be, as far as action possibilities go, be easily distinguishable from that of what we call *unbearable* or *unmanageable*? If we intended to give a comprehensive lexical semantics for gradable adjectives the issue raised here would be of utmost concern, but our own aim is not to cover the full lexical landscape, so Clark's concern remains, thus suggesting the need to step into the lexical level with more conviction to describe PPTs within the adjectival domain. Our focus is on sentential constructions, (non)implications, (seeming) contradictions, and (so called) faultless disagreements. If our analysis sheds lights on these phenomena, then one may think it worth to investigate the lexical differences of these related adjectives.

Differences in exposure and the social and diachronic character of skill acquisition shape differences in whether and when we can come to accept certain judgements.[91] There are novices and experts, amateurs and connaisseurs, gourmet chefs and canteen cooks. If the judgements of those who are more skilled become a sort of reference,[92] this is as examples of refined appreciation, discernment, and choice. However, they do not provide a conceptual determination of the meaning of PPTs and other RGAs, and therefore do not lead to a deliberative and determining judgement.

So our point here is that successful communication in our exchanges of unrestricted and restricted judgements is possible by virtue of the intersubjectivity underlying our subjectivity. The phenomenology of our being solicited by an affordance, the so-called felt tension,[93] is the subjective element we were looking for, one that does not come at the price of the normativity of evaluative judgements.

To recap this section, we have provided an embodied approach to the meaning of gradable adjectives and of evaluative judgements. Gradable adjectives express our affective orientation in the world by signaling certain patterns of readiness to respond to action possibilities offered by our environment. Evaluative judgements signal our responsiveness to relevant affordances of an aspect of the environment, as skilled agents in a natural, social and cultural environment. Unrestricted ones have a sanctioning power that restricted ones do not have. Affordances give us a way to integrate subjectivity into the meaning of PPTs and other RGAs, a way that makes intersubjective agreement possible. Evaluative (dis)agreements are significant because this is how we can coordinate our actions; how we can negotiate the lived world we share and increase our understanding of the affordances available.

5.3 Taking stock

In this section, we want to consider what we have in our hands. We discussed in chapter 2 a few markers of subjectivity which one can find in other RGAs. In subsection 5.3.1, we return to the puzzling phenomena related to PPTs when compared to other RGAs, to see whether our account sheds some light on them. Given the role that action possibilities have in the analysis of evaluative judgements presented in section 5.1, one may wonder whether we are actually doing semantics or pragmatics. We discuss this in subsection 5.3.2. In this chapter we have not presented a semantic theory but rather a conceptual revision of what a semantic theory could be concerned with, so naturally some pushing of the boundaries between semantics and pragmatics is in order. The reader will likely

[91] Cf., Dreyfus [2002], De Jaegher and Di Paolo [2007], Rietveld [2008].

[92] Think of Michelin guides or other critical reviews.

[93] The term comes from Dreyfus and Kelly [2007], following Merleau-Ponty.

also wonder whether we are advocating for expressivism, given the role given to affect and expressive behaviour in our analysis. In subsection 5.3.3, we summarise points of similarity and contrast between that position and our own.

5.3.1 Embodied intentionality and the subjectivity of RGAs

PPTs are gradable adjectives, they belong to RGAs, but they are not like other RGAs in their subjectivity. Our account is conceived with an eye on these phenomena, now what explanations do we get from it? What is subjective about PPTs and other GAs?

Does our account have to say why certain adjectives are gradable? It gives a clue, we think, but not a systematic explanation. In the affordance-based view we have sketched, an adjective is gradable whenit signals recurrent bundles of patterns of action readiness solicited by our environment. Intensity in how we are solicited is reflected in the comparative, and if adjectives like *married vs. single* do not admit a comparative, this is because to have a wife or a husband is a culturally established fact, depending on the institutional rites according to which a marriage counts as being celebrated. If adjectives like *freezing vs. boiling* are not gradable, that is because there is an empirical fact, a perceivable change in state of a liquid into ice or gas correlated with a measurement on a scale. Some adjectives are gradable because before and independently of whether we can establish a factual difference between different objects' heat, height, wetness, or tastiness, we appraise and compare how things feel, how we are affected. While it is generally thought that gradable adjectives denote properties that can be placed along a scale and so allow for intensification, we see things in the opposite sense: patterns of action readiness can be solicited with varying intensity, and this allows us to place some gradable adjectives along a scale.

Gradable adjectives are also distinctive among adjectives because they usually form pairs of polar antonyms. While antonymy is by no means restricted to gradable adjectives, the interaction of the comparatives of polar antonyms is indeed peculiar to gradable adjectives. As we saw in chapter 2, the relation between the positive and the comparative form differ and interact in different ways between polar antonyms. Although the notion of validity and the semantic relations between positive and comparative are still to be defined in the coming chapter, the point that we want to make here is that incompatibility as that of possibilities for action associated with, e.g., *tasty vs. disgusting* is certainly different from the complementary nature of the antonymy between pairs like *tall vs. short*. In the latter case, if one can distinguish a positive difference in height between two men, one can thereby conclude that one is shorter than the other. In the former case, two different patterns are involved, patterns which are incompatible but not complementary: if a cake is tastier than a pie, we do not thereby conclude that the cake is less disgusting that the pie, or that the pie is more disgusting than the cake. Disgust involves a specific response which is incompatible with, but not

inferable from, responding to something's being tasty. Showing more delight does not amount to feeling less disgust. Comparative difference as a mark of antonymy is characteristic of only some gradable adjectives, those which like *tall vs. short* signal reverse possibilities, a specific form of antagonism that not all gradable adjectives carry.

How are these solicitations of varying intensity related to comparative judgements? In the case of a judgement like *This cake is tastier than this pie*, we compare the intensity of two responses. In the case of *This suitcase is heavier than that bag*, the judgement implies not just solicitations of varying intensity, but a difference which is correlated with the possibility of establishing the difference between the two by using an instrument like a scale. Because we have a conventionalised method by which we can measure object's lenghths and weights, an unrestricted comparative judgement does not merely indicate a difference in solicitations; restricted judgements like *I find this suitcase heavier than that bag* take care of this. The expectation that others will agree with the comparative judgement when expressed unrestrictedly cannot be divorced from the availability of a public method by which a dispute could be settled. Herein lies the diference between weak and strong evaluativity. Our view favours the idea that the genesis of the adjective as a linguistic category starts with strongly evaluative adjectives, for the intersubjectively stable nature of weakly evaluatives depends on a cultural process of sedimentation and on the development of practices which allow us to find common ground to our specific and singular experiences. If this is right, then in a way the order is reversed, for one no longer needs to see degrees as being the cornerstone of gradability, but instead one can see evaluativity as the cornerstone, and degrees as a sophisticated development which only come to play role for just some gradable adjectives.

Gradable adjectives admit multiple syntactic constructions, attributive and predicative. Semantic theories usually attempt to derive one construction from the other, the predicative from the attributive, or vice-versa. This is not an issue we wish to settle, for we would need to spell out the exact syntactic transformations involved, a task lying beyond the scope of our work. However, we can perhaps see that our view suggests a certain priority of the predicative form, given that an object under assessment may be indeterminate, to the point that we may not know what it is or how to identify it besides the evaluation we offer, as in *Whatever this is, it is tasty!* So at least conceptually, one could think that if the attributive form in this case would not be prior to the predicative form, since priority would take a very odd form, e.g., *This is a tasty (some)thing!* True, even the most indeterminate object is known to the extent that it meets the sortal restrictions of an adjective; for instance, if something is tasty, then it must be edible.[94] However, the sortal requirement is too general to act as the noun to which the adjective is attributed, as shown by the strangeness of a claim like *This*

[94]See the discussion of edibility given above in section subsection 5.2.2.

is a tasty edible thing! So to some extent, then, our view favours thinking of the predicative form as having a certain priority, at least insofar as it poses less stringent cognitive demands, for one does not need to identify a specific comparison class to which the object under assessment belongs.

The account we offer here and in the next chapter does not explicitly deal with adjectival modifiers, and for that reason it is not possible to offer arguments why so-called degree adverbs like *very, too, enough, almost, little, fairly, rather, slightly*, etc., can modify gradable adjectives, why some of these are only associated with certain gradable adjectives but not all, and under what circumstances.[95] Generally, adjectival modifiers are seen as intensifiers of varying characteristics. In the degree-based view, for instance, degree adverbs are analysed as standard modifiers, with, e.g., *very* being a booster, *slightly* lowering the bar, and *completely* setting the bar as high as possible. In our account, standards do not play a role, so the analysis of these modifiers would have to change. However, what we can say here is that the way we conceive of the meaning of gradable adjectives as being rooted in the patterns of action readiness we signal, we may see that their smooth collocation with adverbial modifiers may be an indication that our analysis is adequate. If an adjective says something about how we act, its adverbial modification modulates this in a systematic way.

As we saw in chapter 2, the phenomenon known as faultless disagreement is taken to be one of, if not the crucial feature that an account of PPTs has to explain. Recall that such disagreements are special because dialogue participants are both in some sense right, hence the faultlessness, even though one asserts the negation of the proposition asserted by other, hence the disagreement. The initial formulation of the phenomenon in the literature says that a faultless disagreement is a conversation between A and B in which "A believes (judges) that p and B believes (judges) that not-p, and neither A nor B has made a mistake (is at fault)."[96] However general this formulation may sound, it imposes a specific way of conceiving of the problem and therefore of the sort of solutions that may be fit to it, as discussed in chapter 3. Evaluative judgements lead to faultless disagreements, but if we analyse a taste dispute as suggested here we simply assume that disembodied intentionality is the right view on the content of these judgements. Our own take on the matter is not to claim that evaluative judgements cannot be assessed for truth. Evaluative judgements can surely be assessed for truth, but their meaning is better understood when one focuses on the actions possibilities they signal and the expectations that they bring in their train.

When Alf claims *This cake is tasty* and Bea denies this and says *No, it isn't!*, there is a disagreement going on, but one that is quite difficult to resolve. Alf signals certain action readiness patterns following an appraisal of the cake, and

[95]It is also good to keep in mind so-called evaluative adverbials like *surprisingly, amazingly*, which also apply to gradable adjectives and not to non-gradable ones. We do not extend our account to adverbs but one can suspect that they would fit in the sketch we have provided here.

[96]Kölbel [2004], p. 54.

that he expects Bea and anyone else with the right skills to share his assessment and engage those action readiness patterns. Alf does not simply hold a belief, his assessment has to do with how he feels and what he is ready to do. Bea's response signals that the expectations are not met, that she is not ready to engage in the possibilities for action signaled by Alf. This antagonism can bring great disappointment and frustration, mainly because to reach an agreement it is necessary to change not just the other's mind or point of view, but how she is attuned to the world, how she responds when embedded in it as an embodied agent. So Kölbel is partly right in saying that in such a situation, "there might be nothing either of them could learn that would make it recommendable for them to change their mind."[97] It just happens that changing one's mind, in terms of giving up a belief, has little to do with changing one's taste. The point is, what Bea learns cannot by itself change her assessment because for this, the way she responds has to change and that takes more than someone's opinion, more than discourse: her experience has to change, not what she thinks. Our diagnosis of faultless disagreements moves away from the solutions discussed in chapter 3 mainly because we move away from the commitment to disembodied intentionality. Rather than resolve the problem, we dissolve it by broadening the picture, by enlarging the notion of intentionality that is relevant for semantics.

Difficult disagreements can also happen with gradable adjectives like *tall, rich, heavy* in the positive form. For instance, when Alf claims *Yanjing is tall* and Bea denies and says *No, he isn't!*, it might be that Alf and Bea have different comparison classes in mind, e.g., Northern vs. Southern Chinese men; or that they have different information concerning the normal height for a Chinese man. Disagreements like these may be resolved by virtue of conventionalised practices that grow on top of our primary affective grip, on how long things looks to us, how we develop techniques to compare length of different things with one specific, fixed length which may be instituted as a unit, and then can calculate average heights and compare measurements rather than consider how things look to us. Where such conventionalised means are set, some evaluative disagreements involving comparatives may be easy to solve because we have a shared method by which the dispute can be settled. These conventionalised means, however, are sometimes irrelevant to the case at hand, for instance, when we discuss heaviness to decide who carries a suitcase and who carries a backpack. In this case, measurements of the weights of the objects, what we compare them to, what we consider a normal weight for such objects, is irrelevant. Settling the disagreement involves developing a skill in one of the dialogue participants, as illustrated in this example:

(4) A: This suitcase is heavy.
B: No, it's not. Try bending your knees and keeping your waist straight.
A: Oh, it's not heavy!

[97] Kölbel [2004], p. 54

So even if an adjective like *heavy* can be easily related to measurements of weight, and *long* can be easily related to measurements of length, one can see their meaning as being primarily given by the action possibilities they signal. To consider the identification and measurement of properties of objects which underlie such action possibilities is an important but derived operation which certainly has an impact on the lexical meaning of such adjectives but which should better be seen as a derived aspect rather than as a basic one.

Difficult disagreements can take place when evaluative judgements involve PPTs in comparative form, as when Alf claims *This cake is tastier than that pie* and Bea denies this and says *No, the pie is tastier than the cake*. Alf and Bea are differently solicited by the cake and the pie, and this is as far as the comparison goes. A concomitant difference in neurophysiological reactions might be discovered, or a systematic difference in proportions of, e.g., fat, protein, and carbohydrates ratio may be correlated to every comparison of tastiness made between any two things. But while these empirical correlations may be discovered, they would not constitute a criterion for saying whether something is tasty. If someone said something is tasty and these empirical correlations were absent, she would not thereby be proved to be wrong about her judgement.[98]

Difficult disagreements also take place with adjectives like *healthy, skilful, clever*. This may be diagnosed as being due to the multidimensionality of these adjectives. If Alf thinks Carl is healthy, and Bea thinks he is not, then that may be because Alf considers Carl's cardiovascular system, which works fine, and Bea considers Carl's immune system, which is not ok. One may want to see adjectives like *beautiful* as being a multidimensional adjective. As argued earlier on in chapter 3, one problem with reducing PPTs to multidimensionals is that no enumeration of dimensions whose weighing and composition could be exhaust the meaning of *beautiful*. One may institute an evaluation card in, e.g., a women's beauty contest, and give a rule for how the points given to each single criterion weighs in the final count, just like assessment cards are created by food or wine critics. But suppose Alf checks one of the beauty contest cards, picks Bea's who got a perfect score or highest core, he looks for Bea, and when he sees her he exclaims: *Oh, she is not beautiful at all!* Is there is something wrong with his judgement?[99] Which aspects of a person, a thing we attend to, how we appraise these, and how separate assessments relate to a global judgement depends on the specific occasion and is completely singular. Our affective responsiveness may show some patterns but it is not rationally constrained by these.

The next question that has to be addressed is: can we embed RGAs under an

[98]Note that if one considers emotion adjectives like *sad/happy* or more specific terms adjectives relating to emotional disorders like *depressed*, empirical correlations may at some point may start to function as criteria. Cf., De Haan et al. [2013].

[99]Is there something wrong with finding three-starred Michelin restaurants lame and pompous, to not enjoy the food they offer, to say out loud that molecular gastronomy is disgusting?

attitude verb like *find*? Special about restricted judgements is that they how the agent (or group) is affected. Restricted judgements signal the actions possibilities of a specific agent (or group thereof), but they do not bring with them expectations concerning the agreement of others.In this account, the attitude verb *find* relates the matrix subject to an extralinguistic entity by showing how the agent appraises it. This entity is not a proposition. A claim like Alf's *I find this cake tasty* is not simply the equivalent to *I find that this cake is tasty* because to find *that* this cake is tasty, Alf should have expectations about her interlocutor's action possibilities that need not be there when he simply signals his findings, his own responsiveness, without thereby claiming a make about others. Outright denial of a first-person judgement like *I find this cake tasty* is off because the notion of mistake does not operate with regard to the agent's situation and construction of the perceptual field as it operates in her epistemic contact with the objective world. We can make mistakes about third-person restricted judgements like *Alf finds this cake tasty* because Alf's reactions are visible to us either in what he says or does; peers are in principle in equal position to judge, be misled, or be wrong about Alf's verbal and non-verbal reactions.

We have been using the case of the Müller-Lyer arrows to explain the difference between the perceptual field and the objective world. The situation we come to is in a sense paradoxical, strange, disharmonious as we will dub it in chapter 6, but not contradictory. How the segments appear and how they are, we can keep those apart, but they are not independent. But their separation is kept as an abstraction which is not available for PPTs like *tasty*. So *This is tasty but I don't find this tasty* is not a plain contradiction because the restricted judgement does not deny the claim made by the first half. But the sequence declares the inability of the speaker to fulfill the demand she is making on others, a demand which prescribes on others a response she immediately declares not to fulfill. In terms we will define in chapter 6, this is a case of incoherence.

5.3.2 Is this semantics or pragmatics?

Adjectives are known to straddle the boundary between semantics and pragmatics, as the idea that there is a separation between "linguistic facts about utterances from those that involve the actions, intentions, and inferences of language users (speaker-hearers)".[100] The general idea is that what linguistic expressions mean has a stable core treated in semantics, and a variable component treated in pragmatics given by the fact that utterances are made in specific circumstances, in a determined (linguistic or nonlinguistic) context. So it is not surprising that one should wonder what position we take the semantics/pragmatics debate. For us, taking a position in this debate should be informed by the specific semantic framework one adopts, so it is too soon to discuss this. However, we can dis-

[100]Bach [1997], p. 36.

cuss here *whether* our account can legitimately aspire to make a contribution to semantics.

In our analysis, we have argued that action possibilities have to become part of the semantic analysis of (at least) certain judgements and adjectives therein. So in a sense, someone could argue, we claim that we broaden the scope of semantics while what we actually do is describe the pragmatics of evaluative judgements. If one draws the boundary considering that semantics only covers the context-independent component of content, then certainly our broadening of the focus of semantics goes off board. Action possibilities are highly context dependent. But then so does any account of gradability that includes elements of context.

If one considers that pragmatics covers conventionalised aspects of meaning that do not contribute to truth-conditional content, then what we are doing certainly tries to put into semantics something that cannot belong there. However, this is an assumption of how to characterise semantic content which has no character of necessity. Truth-conditional semantics is but one way, a powerful and popular one, to model stable features of the meaning of linguistic expressions. But why would this be the only legitimate way? More generally, it is highly doubtful that there is a meaningful characterisation of "semantic" and "pragmatic" that is independent from some theoretical framework, which makes the whole point moot.[101]

But then it is clear that we take affordances to be a key to the meaning of evaluative judgements. Now isn't this just what Austin called perlocutionary effects, i.e., "certain consequential effects upon the feelings, thoughts or actions of the audience, or of the speaker, or of other persons".[102] However, these are causal effects on the addressee characterised, whereas the action possibilities signaled by our evaluative judgements certainly *not* caused by what we say. What to conclude from this, however, is not that action possibilities are mentally represented, or that they are parts of the world that our judgements should correspond to. Semantics does not need to fall into the dichotomy of intellectualism vs. empiricism, this is precisely the point we made by drawing from Merleau-Ponty to work out embodied intentionality.

Yet another point of consideration concerns another foundational distinction, the traditional way of seeing the division of labour between semantic content vs. world knowledge. With this seemingly intuitive view in mind, one could say that the affordance-based account we have presented is actually just world knowledge that we are trying to force into the linguistic content of PPTs and other RGAs. A fair discussion of this seemingly intuitive distinction and how it has been challenged would take us too far from our main thread here. However, we need to note that the distinction is made on the basis of a conviction of where the boundaries of semantic content lie, and we have seen that such convictions

[101] Cf., Stokhof [2014].
[102] Austin [1962], p. 101.

depend on the commitments one makes of what meaning is and how it can be conceptualised. In any case, the main concern here regards whether embodied intentionality as sketched here can be "structural enough" to plausibly lead to a theory of meaning. The claim we have tried to put forward by calling on affordances to spell out how embodied intentionality can specify content is that action possibilities relevant for gradable adjectives are inherently correlated with our abilities. Affordances give us a stable core of patterns of behaviour across contingencies that make each occasion of use different. A good share of the stability that is achieved is guaranteed by our shared intercorporality. But there is a cultural and social dimension of context that contribute to the modulation of our bodies, the sedimentation of cultural habits, and the tight interdependence of nature and culture in an embodied agent. Such external constraints determine spaces of possibilities for different people that are sufficiently similar to avoid substantial relativism. Such constraints depend on intercorporality but it is probably salutary not to erase all distinctions here.[103]

All this talk of the affective dimension might suggest that our project is a variant of expressivism. Let us elaborate on this somewhat further to spell out our coincidences and differences.

5.3.3 Relation with expressivism

Since kosher expressivism we reviewed in chapter 3 actually argues that the expressive-affective dimension belongs to the level of pragmatics, and given that our own claim is that embodied intentionality integrates the affective dimension of cognition, one may again think that all we are doing is pragmatics. However, in our view the demand to universal agreement made by unrestricted judgements is not optional, and social persuasion is not a perlocutionary effect of the utterance.

At an obvious level, we do not endorse the expressivist project, for we strive to accommodate evaluative judgements as expressions which have specific cognitive contents, while expressivists usually stand as non-cognitivists turning the additional (semantic or pragmatic) layer of meaning into a non-cognitive attitude or use-conditional constraint. Unrestricted judgements demand the agreement of others but make specific claims with specific contents. The fact that we argue for the integration of the affective dimension into the meaning of the expressions we have discussed here can be taken as a move towards Ayerian emotivism. Our own point is: states are not either motivational or non-motivational. Information and affect are inseparable aspects of cognition, not exclusive ones. As we conceive of them (a conception that will be spelled out rigorously but more abstractly in

[103] One can see in Merleau-Ponty a stronger claim which would suggest that intercorporality carries all the weight, for "It is through my body that I understand other people, just as it is through my body that I perceive 'things'."[104] The point is that making a distinction between intercorporality and what we call here external constraints is not really possible in the context of Merleau-Ponty's work.

chapter 6), intentional states can be both informative *and* motivational.

Our analysis might give the impression that we think evaluative judgements are somehow very special and different from ordinary descriptive judgements, that we draw a line between normative and non-normative discourse as expressivists do. The truth is that we do not think that there is a radical difference between evaluative judgements and non-evaluative ones, only that evaluative judgements make it clear that a change in how we conceive of linguistic meaning is in order. The idea of embodied intentionality we outline here would not be exclusive to PPTs or RGAs. Admittedly, the argument given in this chapter focuses on this case, and nothing much is said of how our account would accommodate non-evaluative judgements. However, this is a general claim, one that is beyond the scope of this chapter. On the one hand, because we have dealt here with a specific case which calls for embodied intentionality, to argue for the need and feasibility of such an alternative. On the other hand, because this claim can be substiantiated only when we have a systematic, compositional analysis, so this is a matter that we need to return to in chapter 6. In any case, the fact that non-evaluative judgements do not call for embodied intentionality does not mean, in the line we have developed, that a different kind of meaning applies to them. Disembodied intentionality is contained in, and actually made possible by, embodied intentionality.

Another aspect of our account that may seem to bring us close to expressivism is the fact that we take evaluative judgements to signal action possibilities. One may think that our claim is that evaluative judgements merely replace the gestures and characteristic behaviour by which we naturally express pain, anger, relish, etc. Our reliance on Wittgenstein's view on avowals can surely suggest this.[105] However, our argument is precisely that although characteristic expressions are not conventional, the link between the linguistic marker and the action possibilities thereby signaled is conventional. Unlike yawns or shrieks, adjectives and evaluative judgements have specific contents.

There are, however, common challenges to our view and expressivism. One of this is the issue concerning incompatibility. Expressivism is faced with the challenge of accounting for the inconsistency of a sentence like *Murder is wrong* and its negation *Murder is not wrong.*[106] Aren't our conflicting action possibilities just incompatible plans as like Gibbard's?[107] For one thing, we have argued that the responsiveness pulled by affordances is not really plan-like because it is unreflective and spontaneous. Plans lead to decisions but we do not get to decide how we respond when we are summoned by an affordance. The well known Frege-Geach objection to expressivism, will be discussed in chapter 6, once we actually have a semantics and logical connectives in place.

[105]Remember Wittgenstein's oft-noted comparison of a cry of pain with the utterance *I'm in pain* (Wittgenstein [1958a], §244).

[106]Schroeder [2008b], p. 7.

[107]As in Gibbard [1990].

5.4 Conclusion and work ahead

In this chapter, we have tried to sketch embodied intentionality as a broader foundational ground for the semantics of PPTs and other RGAs. We argued that disembodied intentionality has inherent limitations to get a grip on evaluative judgements, and we drew from phenomenology a few conceptual tools to get a clearer picture of what is subjective in gradable adjectives, and how to put this at the basis of a revised view of what semantics is or can be. Human agents are embodied creatures whose lived bodies are the locus of subjectivity. Evaluative judgements communicate our affective stance in the world, a world which we first navigate through the primary grip given by our embodied condition.

Before we move on, let us briefly see how the claims of this chapter bear on the Dreyfus-McDowell debate we referred to in chapter 4, section 4.3. We have claimed in this chapter that the meaning of evaluative judgements is fundamentally tied up with the responsiveness to relevance affordances they signal. Does this involve conceptual processing, or does it rather show that not all mindedness is conceptual? At this point, we have to distinguish experience from judgement, assessment from utterance. A point is clear and that is that finding something tasty is an achievement accessible to creatures which we generally take to be conceptually empowered as the adult human being. This is what we see with the case of baby Anna who finds infant formula tasty. Somewhat more far-fetched is the case of a cat that finds a certain brand of cat food tasty. What such examples make clear is that having the sort of response that *tasty* signals is, by our account, something that babies and maybe also cats can get. They can get it because we can recognise their responsiveness as being very much (for Anna) or more or less (for the cat) like our own. This is not to claim, however, that these creatures pass judgements, and this is where what is at stake in the debate actually seems to kick in. Linguistic creatures pass judgements, non-linguistic creatures have experiences but do not pass judgements. Should we conclude from this that passing judgements involves conceptual abilities? Well, this is not a conclusion that easily follows from what we have said, unless one has already assumed that linguistic creatures are conceptual creatures. The issue goes beyond what we can discuss here, naturally, but one point can be distilled: the kind of responsiveness that is relevant for embodied intentionality does not necessitate concepts because it is tied to abilities that heavily depend on our shard intercorporality. However, as soon as we start passing judgements, even of the most simple nature, our conceptual development starts. A key to this is the idea of reflective judgement as presented in chapter 4, subsection 4.1.2, and then extended in subsection 4.1.3. The normative character of our affective responsiveness is necessary for the development of concepts.

In the next chapter, we take the lessons from this foundational revision to outline a formal model of the semantics of evaluative judgements.

Chapter 6

Testing and tasting: a sketch of a model

In chapter 5, we argued that broadening the focus of intentionality that is pertinent for linguistic meaning is a key to the subjectivity of predicates of personal taste (PPTs) and other relative gradable adjectives (RGAs). We developed an outline of embodied intentionality: our affective relations to things, people, situations, and ideas partly shape cognition, so it is only reasonable to consider that discourse is also concerned with them. The way we suggested this could be thought of is by looking at how expected patterns of behaviour, linguistic and non-linguistic, are associated with evaluative judgements.

In this chapter we sketch a semantic model[1] of RGAs showing how our analysis can be bootstrapped in an update semantics system. We choose update semantics because this approach is flexible enough to model meanings as operations on intentional states, operations involving exchanging information *and* signaling expectations. The model, however, should not be seen as an attempt to give a full-fledged and exact representation of the analysis of embodied intentionality as presented in chapter 5. It should be better regarded as an exercise in which we see how far we can get with the means available in update semantics.

How we think the system and the philosophical analysis are related will be discussed in section 6.1. We will also comment on why we choose an update framework and a partial semantics. In section 6.2, we lay out the definitions we need to get a working model, and we discuss the analysis of gradability that comes out of it. We review this formalisation in section 6.3 concerning its position with respect to the debate on the semantics of PPTs. While we hope there is something here for everybody, — the contextualist, the relativist, the absolutist, and the expressivist — we also hope to avoid some of the theory-internal problems and riddles.

[1]This model has been developed as joint work with Frank Veltman. It has been presented in various venues: University of Tilburg, University of Utrecht, Peking University, University of Maryland College Park, and University of Barcelona. We are grateful to these audiences for the feedback they provided.

6.1 Preliminary discussion

Why give a formal model? There is a straightforward answer: the issue of whether and in what sense subjectivity plays a role in the meaning of gradable adjectives has been raised in the context of the struggle among different strategies to formalise the semantics for PPTs. So we formulate our analysis in formal terms to be able to compare it with the other players on the field. But this does not really say how we believe formal modeling relates to the natural language phenomena we started out with, and how formal modeling relates to the philosophical argument we have constructed so far. This is what we deal with in subsection 6.1.1.

In subsection 6.1.2, we discuss our choice of update semantics as the framework in which we sketch the model. We shall argue that this choice is justified mainly for philosophical rather than technical reasons. Given the analysis in the previous chapter, we know that we need to focus on the very idea of an intentional state, how it changes during a conversation, how this constrains the further judgements they can accept. This is something update semantics is designed to deal with.

In subsection 6.1.3, we give an argument in support of our choice of a partial setting for the semantics we offer. The core idea behind this choice is that agents deal only with a few objects at a time, and that if one is forced to decide at once how to evaluate every possible sentence, then one has to get more precise than gradable adjectives admit.

6.1.1 Why give a formal model?

We have given a philosophical analysis of the meaning of evaluative judgements. Two issues have to be addressed here: how does the model we present relate to the natural language phenomena we departed from? And how does it relate to the philosophical analysis we offered?

There are more and less traditional ways to see the relation between natural language phenomena and formal systems devised by semanticists. The word 'model' may be used as a purely technical term, to designate a mathematical structure which is deployed to interpret the sentences of a formal language consisting of predicate, function, and constant symbols, of variables, quantifiers, and connectives. But usually, a further step is made, for it is very common to see that formal modeling is thought of as an effort to *represent* natural language phenomena, "in the sense that all the relevant properties of the natural language are assumed to be adequately represented by properties of the formal system."[2] It is thought that semantic modeling is a matter of achieving a systematic representation relation conceived as a translation between the formal system and the natural language expressions that are modeled. A sufficient similarity between natural and formal language is assumed in order to think of the sentences in a

[2]Cf., Stokhof [2011], p. 7.

formal language to be a translation of those in natural language.[3]

The point we raise here is that our modeling task focuses on structural aspects of the initial phenomena, to offer a better analysis of how subjectivity relates to the meaning of PPTs and other RGAs. The model we offer is not intended to stand on a par with respect to the predictive power of existing approaches to gradability, but to make explicit some aspects of the conceptual considerations on subjectivity and meaning that we have offered in preceding chapters. We sketch this system to show that a broader conception of linguistic meaning can be accommodated within an existing, well-established, and independently motivated semantic framework, by showing how it can lead to a cogent and hopefully interesting logical model.

How does the system stand with respect to the foundational analysis we have offered? Just like fashion models serve to present clothes but do not really represent women as such (i.e., women who do not work as fashion models), a formal model can be seen as a manikin, as a simplified silhouette which is useful to display clothes but which is not meant to bear all resemblances with the people who actually wear those clothes.[4] We do not offer the system as representation of the analysis of embodied intentionality, nor do we believe that we give something like *the* logic of embodied intentionality. The system provides a proof of concept that will let us see whether our reasoning in chapter 5 can lead to a systematic treatment of structural features of the meaning of evaluative judgements.

6.1.2 Why do this in update semantics?

We start with a brief attempt to justify why we offer a model in the form of an update system along the lines developed by Veltman [1996]. The weight of tradition inclines the scales in favour of truth-conditional models, and it seems that unless one has good reasons for departing from this framework, one should not abandon it.[5] Update systems belong to the dynamic strand in semantics,[6] so we have to try to persuade the reader that it might be ok to be a bit less orthodox

[3]This sufficient similarity is best worded by Montague [1970]: "There is in my opinion no important theoretical difference between natural languages and the artificial languages of logicians; indeed, I consider it possible to comprehend the syntax and semantics of both kinds of languages within a single natural and mathematically precise theory."

[4]Veltman [1985] puts this as follows: "Giving a formal analysis of an informal argument is like drawing a cartoon: one has to leave out everything that is unimportant, exaggerate the few things left and when this is properly done the result can be a striking characterization of what is going on." Our view is very close to this one, except that we do not make the claim that what is left out of the model is unimportant.

[5]In a sense, this is reasonable: formal semantics takes care of regions of language bit by bit, and it is better to keep modeling within one framework because this would make it easier to put the pieces together at some point, at least that is what is hoped.

[6]Update semantics is a framework within dynamic semantics. Theories in dynamic semantics differ importantly with respect to how they conceive of the notion of meaning. The differences among systems are discussed in Stokhof [2014].

for some purposes. The argument we give shows that update semantics provides a smooth fit for the modeling task at hand.

In contrast to static semantics, where the meaning of a sentence is given by the conditions under which it is true and where logical consequence is defined in terms of truth-preservation, a slogan summarising the take of update semantics on meaning is that you know the meaning of a sentence, not if you know its truth-conditions, but if you know the change it brings about in the intentional state of anyone who wants to incorporate the information conveyed by it.[7] The focus on the way a state changes when a sentence is incorporated to an agent's state, and a sentence's meaning is more aptly seen as a function defining a transition from state to state. This allows us to see what a speaker seeks with her utterances, and the impact these have on the addressee. The cornerstone notion is ACCEPTANCE (also known as support) the situation in which a state is such that incorporating a sentence makes no change on one's state, and validity is thereby defined.

A fine feature of update semantics is that both context of utterance and context of assessment are elements of its basic architecture. Update semantics does not consider the meaning of a sentence to be given simply by how language and world relate, but rather to be given at a more abstract level, at the level of the impact a sentence has on agents' states, considering separately the speaker and the addressee. (What matters most is indeed the addressee's perspective, but for this one has to distinguish it from the speaker's.) What their states are like at the beginning of a conversation, and how they change, are the coordinates on the basis of which meaning operates. A speaker is supposed to utter sentences she already accepts, and update functions tell us how an addressee's state has to change if she accepts the sentences the speaker utters. For this reason, this semantic framework does not take interpretation to be a business of building representations of the world, but rather a business of keeping ourselves attuned to the situations we inhabit, and not just through the (partial) propositional knowledge we may have thereof. Meaning as given in update semantics is well-suited to go beyond the boundaries of disembodied intentionality. To cross those boundaries, the first crucial step will be to give a definition of an intentional state, one that accommodates this more encompassing view on cognition.

Conversation is often given between and among equals: normally, our interlocutors are similar to us in relevant respects. But it may happen that they are not, like when speaker and addressee are obviously non-peers — like the case of a teacher speaking to her students, telling them, e.g., that an exercise is difficult, or a caretaker talking to a child, telling her that the baby food she is being fed is tasty —, and then what really matters is the addressee's position. This phenomenon is not limited to evaluative judgements: it extends to, e.g., presup-

[7]Since this is a slogan, it is bound to be too narrow. The word 'information' is problematic because it gives the impression that intentional states as we care about when modeling evaluative judgements may be purely thetic, but as we saw in chapter 5, this is not so.

positions[8] and epistemic modalities, which raises doubts on the idea that placing oneself in someone else's shoes[9] is a defining feature of PPTs. To make sense of such cases, we must keep track of the positions of the speaker and addressee, separately As we shall see in section 6.2, in such cases the truth of the sentence is not relativised to the addressee; the speaker is, in a very specific sense, incoherent, a phenomenon that occurs whenever a speaker's claims are not accepted in her own state.

In recent years, update semantics has been seen as an expressivist undertaking, given that in such frameworks the meaning of some linguistic expressions is not understood as a matter of world-inquiry but as tests or probes on intentional states themselves, independently of what the actual world is like.[10] Update semantics is thought to be expressivist because, it is argued, "understanding entailment as support preservation rather than truth preservation is essential to the expressivist approach."[11] Our first warning is the following: if update semantics is thought to be expressivist because classical propositions do not suffice to cover the palette of meaning it harbours, then one could well say that any update system is expressivist, and that the meaning of, e.g., epistemic modals or imperatives as modeled in such systems have expressive meaning. Expressivism is associated to the claim that normative sentences, ethical or aesthetic, are not truth-apt, i.e., meaning that they not have a proposition as its semantic value at a context. However, update semantics neither claims that there are sentences that cannot be evaluated for truth, nor that there are sentences which do not have a proposition as its semantic value at a context. It proposes a new way to conceive of propositions, and it takes acceptance or support to be a more basic notion than truth, and a more adequate one to analyse the meaning of certain sentences. A second, more pressing warning is the following: if one declares anything that falls beyond classical propositional meaning to be non-cognitive content, it is because one has decided that the boundaries of cognition lie strictly within classical propositional meaning. And the point is, there seems to be no justified reason to set the limits of cognition here, other than the well-earned reputation and stability of truth-conditional semantics. Yet a third warning is this: if one still wants to call our view expressivist, one should note that our model will have no trouble handling negation and Frege-Geach examples (as we discuss below in appendix A). The key here is to leave behind the division between sorts of sentences, sorts of meanings, sorts of mental states that the expressivist assumes. This is partly what the

[8]Karawani [2014] gives a new twist to the discussion about the presuppositions of counterfactuals by arguing that in case of disagreement the speaker sometimes can assert "if A had been the case..." in a context where only the addressee believes that A is false.

[9]What Lasersohn [2005] calls the exocentric perspective, though he characterises it in a very specific, truth-conditional way, as "assessing sentences for truth relative to contexts in which someone other than ourselves is specified as the judge". (p. 670)

[10]Hellie [2013], Willer [2014], to some extent promoted and enticed by Yalcin [2007].

[11]See Hellie [2013], p. 11

model we sketch shows how to do. So the system we offer stands in this sense differs in crucial respects from expressivist views on PPTs. The upshot of these warnings is, we believe, that understanding entailment as support preservation as we do is, in a sense, an overcoming of expressivism rather than its confirmation.

For those already familiar with other systems in update semantics, it may come as a surprise to speak of intentional states, rather than informational or cognitive states. This terminological choice may sound like a trivial subtlety, but it is meant to highlight the complexity of states as we define below when compared with the states required for update systems dealing with, e.g., epistemic modalities, states as partial records of information about what is the case. When you want to deal with other moods like imperatives,[12] and, as we will see below, when dealing with evaluative judgements, information is not all that matters, for one has to make room for expectations as characterised below.

Evaluative judgements are heavily context-dependent, as we have seen, since what one has already accepted constrains the judgements one can accept next. Suppose you have accepted *Alf is tall*, and *Bea is taller than Alf*. You are then bound to call Bea tall, and if someone says the opposite you will not accept her judgement. Instead, if so far one has only accepted *Bea is taller than Alf*, then in absence of other information one may accept *Bea is tall*, *Alf is tall*, or *Neither Alf nor Bea is tall*. Context dependence of this guise is at the core of dynamic meaning as presented in update semantics, as well as in some of its predecessors in the dynamic tradition.[13]

So to what extent does the system we sketch model the affective dimension of intentionality? Given that we think of the model as a simplified display, what is kept and what is lost? Evaluative judgements, we argued in chapter 5, signal patterns of behaviour, linguistic and non-linguistic, associated with the PPTs or other RGAs they feature. Unrestricted judgements like *This cake is tasty* and restricted ones like *I find this cake tasty*, signal the speaker's own commitments, but only the former lays down normative expectations onto the addressee and other potential interlocutors. In the system sketched below the affective dimension is seized by incorporating tests into agents' basic states, and expectations concerning the responses and judgements of other agents. Here follows a brief, informal explanation, mainly intended to highlight what is taken and left from the analysis in the preceding chapter.

Tests allow us to integrate the input provided by embodiment into the semantics, standing for the response someone may have when she tastes something to check whether she finds it tasty. They work as theoretical simplifications, however, for we give no details here about how tests for different RGAs differ, and we simply consider **yes**/**no** alternatives standing for the positive or negative response an agent would give, maybe non-linguistically, to the question: *Do you*

[12] See Mastop [2005], Nauze [2008].

[13] Like Kamp [1981].

find this G?, where G stands for a PPT or other RGA.

A judgement like *This cake is tasty* comes with expectations about other people's responses to the object under assessment. Other people are expected to find it tasty as well, even when we know they do not share our responses. Once we have accepted the general statement *Cakes are tasty*, when we do not know whether a given cake is tasty, we expect it to be tasty. When all we know about Alf is that he is a man, we expect him to be normal, neither tall nor short, and we use *tall* and *short* only if this expectation is overruled by what we learn next.

Obviously, 'people' has to be qualified. We do not expect children to find cognac tasty. We expect people to partake in our strongly evaluative judgements, but not just any people. When a speaker lays down a normative claim on others, these are others who are as experienced as the speaker is. Unrestricted judgements presuppose community because expectations lay down bonds with agents whose intentional states are structured like ours.[14] We normally assume that our interlocutors are similar to us in relevant respects, and normally we are guided by coherence and consistency as given below in definition 6.2.1. As mentioned before, when speaker and addressee are obviously non-peers — like the case of a teacher speaking to her students, telling them, e.g., than an exercise is difficult —, what matters is the addressee's position. In such case, the discourse is consistent, but not coherent.

Expectations are double-edged, with a descriptive and also a *normative* character.[15] We expect not just what we know can plausibly be the case, but also, sometimes, what we know is not or will not be satisfied. So if Alf tells Bea that he expects the train to be late, that says something about the time when the train was supposed to come and the time that it might actually come. But we also hold expectations towards our students; we expect them to work hard, even if we know that normally only a few may actually put substantial effort into their study work. We expect cakes to be tasty, even if supermarket cakes are often disappointing. In such cases, what we expect and what is actually the case may, and often do, come apart.

Certainly, we expect others to agree with us whenever we utter a judgement, evaluative or non-evaluative. The differences lies in the sort of expectations that they raise. A speaker expects an addressee to accept her non-evaluative judgements like *Alf is dead* or *Bea is pregnant*, either because the addressee has evidence for such judgements or because she trusts the speaker and assumes that, if asked for evidence backing up those judgements, the speaker could provide it. A speaker expects an addressee to accept her evaluative judgements like *This cake is tasty* or *That pianist is skilful*, not by virtue of a piece of evidence, but on the basis of the normative assumption that if the addressee were to try the cake or

[14] One can find here an echo of the Kantian assumption that other's cognitive abilities are structured very much like ours. See chapter 4, subsection 4.1.2.

[15] These two aspects do not come apart, as the aspects of meaning that expressivists distinguish. We see this once we elaborate formally this view on expectations.

listen to the pianist in question, she would agree with her. The outcome of that test is expected to be like our own, this is the Kantian element of our analysis. And yet, this expectation on others is not founded on evidence, and can therefore not be imposed on others by mere discursive means, as argued in chapter 4.

6.1.3 Why choose a partial setting?

As a last preparatory point, we wish to give some philosophical grounding for the choice of partial interpretations in the update system we offer. The influential degree-based view on gradability assumes that in any context there is a cut-off point, a degree above which one calls objects, e.g., *long* and under which one calls objects *short*. So nowadays it is quite comon to think that interpreting a gradable adjective is possible only when a line is drawn. The update system we sketch works out the contention that such core idea can and should better be abandoned.[16]

The reason why we do not assume that cut-off points are needed for the interpretation of gradable adjectives is related to the so-called *Tolerance Principle* already mentioned in chapter 2, subsection 2.1.2:[17] *If there is no significant difference between two objects in respects relevant to A, then either A applies to both or to neither.* One can to try to find a way to reject this principle,[18] or leave it as it is, in which case we are forced to conclude that the use of at least some gradable adjectives is intrinsically inconsistent. We believe it is best to leave the principle as it is, for normally we only deal with restricted samples, not with a full range of cases.[19] In those circumstances the *Tolerance Principle* does *not* give rise to inconsistency. Only when confronted with sequences of objects showing hardly perceptible differences we get into trouble if with behold the principle.[20] But then gradable adjectives are not meant to be used in those situations; what we should use there is other, finer tools; we should no longer talk in terms of *tall, hot, big*, etc., but in terms of degrees centigrade, or millimeters, or grains of wheat.[21] Of course, we can perceive the difference between two grains of wheat

[16]The following argumentation owes much to Veltman [1987], published recently in Veltman [2013].

[17]There we presented Dummett [1975]'s diagnosis of the predicament we face with the Sorites paradox. As we saw there, a Sorites can be constructed for an adjective A when its use is seen to be guided by this principle.

[18]This is how for instance supervaluation theories, a variety within the delineation-based approach to gradability, react to the Sorites. Having ranges of admissible precisifications, supervaluationists extend classical logic and thus avoid the trap posed by Tolerance. The range of possible cut-off points makes it possible to extend classical logic and create a space of borderline cases, so that one can move from cases one calls *tall* to cases one calls *not tall* by going through instances which are neither clearly tall, nor clearly not tall.

[19]As Dummett [1975] points out.

[20]In such cases, we are forced into a Sorites, and we have to block the conclusion of the reasoning.

[21]One could call this a Wittgensteinian solution. Compare: "The sign post is in order if under

or of a difference in very few millimeters in the length of two lines. The former, we can achieve by touch or sight, the latter we can achieve with the aid of an instrument. But the point is that these fine distinctions are not what we primarily communicate by using gradable adjectives. When we say that a segment AB is 2mm longer than a segment CD, which of course we can say and which makes perfect sense, we are extending the application of an adjective like *long*. This can be done but not without risk, and this is what the Sorites reasoning lays bare.

We endorse and exploit partiality to make sure that we model the interpretation of gradable adjectives as a piecemeal process.[22] Cut-off points are a powerful technical device but not a fundamental concept to model gradable adjectives. We can draw lines if we need to, for specific purposes. We do not need to rely on cut-off points to say whether someone is tall, when something is tasty. We tag objects with adjectives like *tall, hot, expensive* when certain responses are prompted, when we are required to decide how to categorise them. We are indifferent to lots of things. We do not have, and more importantly *need not* be supposed to have, a response to every object of a kind, or to objects of all kinds. Under certain circumstances, we stop being indifferent, we are bound to react and thus we care. The partial changes of our intentional state are signaled by linguistic expressions that show how we are affected and what we learn. When we do have a response, this can be one in which we call *tall*, objects that we call *short*, and objects which we call neither *tall* nor *short*. So for us partiality is the means to resist the temptation to make these adjectives too precise, to treat them as scientific tools instead of granting them the role they play in letting us signal linguistically with the variety of ways in which we can respond to our environment.

To wrap up, let us repeat that the system we offer is a useful device, not a mimic or the essence of our prior discussion. The choice of update semantics is mainly driven by the flexibility of the notion of meaning it puts forward, and by how it focuses on what each agent brings to, and takes from, a conversation. A partial model allows us to make not so stringent and more reasonable commitments concerning the constraints required for successful interpretation of evaluative judgements.

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normal circumstances, it fulfills its purpose." Wittgenstein [1958a], § 87. This Wittgensteinean solution relates to the one offered by Veltman and Muskens (described in Veltman [1987] and in van Deemter [2010] pp. xvi and 341), and to that of Van Rooij [2011a,b].

[22] This relates to the suggestion concerning partiality in Van Rooij [2011b]: "According to one model, we measure the height of individuals up to a decimeter precise, while at another up to a centimeter, or a millimeter precise." (p. 40). But that suggestion is mainly concerned with granularity: we can make finer and finer distinctions in a measurement. As we shall see, this picture might be ok for weakly evaluative adjectives, not really for strongly evaluatives.

6.2 Sketch of a model

In this section we present an update system for RGAs. The scope of adjectives covered by the system and the predictions it makes is thus considerably smaller than the scope of other semantic theories for gradable adjectives. As opted in chapter 2, we leave out of consideration absolute gradable adjectives, not because they do not deserve to be integrated in a model for gradability, but because their profile escapes to some extent the subjective and evaluative features that one can find in PPTs and other RGAs.

Our system sides with the delineation-based approach presented in chapter 3, subsection 3.1.3.[23] This alternative allows us to escape the idea that gradability is, essentially, scalarity. The system presented here, based on the general framework in Veltman [1996], takes the meaning $[\![\varphi]\!]$ of a sentence φ to be an operation on intentional states. The definition of these states will come below, but here is an overview of the main elements of the system.

6.2.1. Definition. [Ingredients for an update system]

1. An update system for a language L is given by:
   - A set Σ of intentional states.
   - A partial function $[\![.]\!]$ which, when defined, assigns a state $S[\![\varphi]\!]$ to a sentence φ of L and a state $S \in \Sigma$.
2. Sometimes the information conveyed by φ will already be subsumed by S. In this case, we say that φ is accepted in S, or that S supports φ, and we write this as $S \models \varphi$. In our case, this relation can be defined as:

$$S \models \varphi \text{ iff } S[\![\varphi]\!] = S$$

3. An argument is valid if updating any state with the premises yields a state that supports the conclusion. $\varphi_1, \ldots, \varphi_n \models \psi$ iff for every state S, $S[\![\varphi_1]\!] \ldots [\![\varphi_n]\!] \models \psi$.
4. Below, the empty set $\emptyset$ will serve as the *absurd state*. It is a state agents will try to avoid because if you are in this state you are at a loss, cognitively speaking.
5. Two logical notions that will be instrumental for us are coherence and consistency:

[23] Our update system is dynamic, and to that extent it is similar to the analysis in Barker [2002, 2013]. But Barker takes a degree analysis of gradable adjectives as the basis for his dynamic approach. Another issue, but one we will not develop here, is that different dynamic semantic theories come with different notions of meaning, and the one underlying Barker's theory may not be quite like the one involved in update semantics. Cf., Stokhof [2014].

- A discourse $\varphi_1, \ldots, \varphi_n$ is consistent iff there is some $S \in \Sigma$ such that $S[\![\varphi_1]\!] \ldots [\![\varphi_n]\!]$ exists and $S[\![\varphi_1]\!] \ldots [\![\varphi_n]\!] \neq \emptyset$.
- A discourse $\varphi_1, \ldots, \varphi_n$ is coherent iff there is some $S \in \Sigma$ such that $S[\![\varphi_1]\!] \ldots [\![\varphi_n]\!] = S$ and $S \neq \emptyset$.

Coherence and consistency are semantic notions for they tell us something about the update potential of a discourse. But they also govern the pragmatics of conversation, for a speaker is supposed to say only what she can accept herself, so what she says should be coherent, and an addressee is supposed to accept only what does not make her leap into the absurd state, so she should only accept consistent discourse.

In subsection 6.2.1, we present the technical toolkit containing the basic notions we will need. It will not mean much here, but we list them so that the reader has an easy reference: We will list features that RGAs should have (more succinctly than as presented in chapter 2) We will distinguish the usual notion of comparison class from a related notion we introduce: comparison base. With the help of this distinction, we will characterise homogeneous and heterogeneous adjectives. We will define a simple language for evaluative judgements. To give an interpretation, we will start with a situation, which will be the building block of basic intentional states. We will provide basic constraints on these states, and further constraints concerning strongly evaluatives. A useful notion of harmony will be introduced, and we we will single out a special state, the minimal state, where we articulate an important constraint, normality. In subsection 6.2.2, we present the update rules for unrestricted judgements like *Alf is tall* and *This cake is tasty*. In subsection 6.2.3, we present the update rules for restricted judgements like *I find this cake tasty* and *Alf finds Bea beautiful*. In subsection 6.2.4, still in the simple setup, we introduce negation. In subsection 6.2.5, we briefly discuss the picture of gradability coming out of our view, how it resembles and differs from degree vs. delineation based accounts. In appendix A we extend this system with logical connectives and first-order quantifiers

6.2.1 Technical toolkit

Let G stand for a gradable adjective. In the following G counts as a RGA if:

1. G can be used in both predicative and attributive position.
2. G has a comparative G-*er* form.[24]
3. G has a polar antonym (for which we write $\breve{G}$).
4. G and $\breve{G}$ admit modification with degree adverbs like *very*.

[24]For simplicity, we leave the superlative form aside in the model we sketch below.

5. It is logically possible for something to be neither G nor $\breve{G}$.

6. If the object x is G, then it should be logically possible for there to be an object y that is G-*er* than x, and an object z that is less G than x.

We distinguish two kinds of RGA's, the weakly evaluative and the strongly evaluative. They differ in that the comparative of a weakly evaluative adjective (like *taller than, more expensive than*) has a public, conventionalised method associated to it, whereas the comparative of a strongly evaluative adjective (like (*tastier than, more beautiful than*) lacks this method. We leave out of our focus absolute gradable adjectives like *wet vs. dry*, like *open vs. closed*, privative adjectives like *alleged, fake*, and non-gradable adjectives like *pregnant, married*. For reasons of space and simplicity, we do not delve into details concerning adjectival polarity, that is, that for instance for the pair *tall, short*, *tall* is the positive element in the pair while *short* is the negative one. One could assume that G corresponds to the positive and $\breve{G}$ to the negative case, but we are not making any specific commitments of this sort in what follows.

Adjectives can modify nouns. They can be predicated of individual items as given by, e.g., *this cake, this piece of young Gouda*, but also to sorts of objects given by mass nouns, as given by, e.g., *chocolate cake, cheese,* etc. For the sake of simplicity of the formalisation, the domain of objects D will only comprise individual items.

Context dependence is an essential feature of gradable adjectives. A short Dutch man may be called tall when compared to Chinese men. A man may be skilful as a mathematician but not as a violinist. To bring this out, semanticists often make use of comparison classes, that is, sets of objects that are similar in some way to the object under assessment. We wish to take up this notion but in a specific way, for these sets of objects are often related by set inclusion. For instance, Frisian men are Dutch men, Dutch men are European men, European men are men, men are human beings. A way to organise this landscape is to see that a gradable adjective may be seen to come with a set of COMPARISON BASES, given by a set of nouns. As examples, think for instance of: $c(\text{tall}) = \{\text{human being, building, tree}, \ldots\}$ or $c(\text{skilful}) = \{\text{mathematician, violinist, carpenter}, \ldots\}$. For each of these bases, we can make finer distinctions: among human beings there are men, women, European men, Dutch men, Frisian men, etc. We call these COMPARISON CLASSES. We reserve the term comparison base for the maximal case. It has been noted[25] that English syntax shows there is a difference between prepositions *as* and *for* when used to specify sets of objects. The preposition *for* is used to pick out a comparison class, as in *Mary is skilful for a six year old violinist*. The comparison base, the maximal case, is picked by the preposition *as*, to say for instance *Mary skilful as a carpenter, but not as a violinist*. Here are the formal definitions:

[25]See Morzycki [2013], ch. 2.

6.2.2. Definition. [Comparison base]
Let G be some RGA. The *comparison base*, $c(G)$ for G is a set of nouns N. If $N \in c(G)$ then

1. all objects in the extension of N are *comparable*.[26]

2. no proper subset of the extension of N is a *comparison base*.

3. every subset in the extension of N determines a *comparison class* relative to N for G.

By "all objects are comparable" we mean that there is a uniform method — one that can be used throughout the comparison base — that yields for every two objects x and y as possible outcomes that either x is G-*er* than y, or y is G-*er* than x, or both are equally G (i.e., equally G *given the method*; very small differences are not always distinguishable).[27] "Method" here should be understood in the widest sense of the word, as it could be by simple perceptual contact like observation, smell, taste or touch. If both x and y have the property expressed by N the conclusion cannot be that x and y are incomparable with respect to G. Expertise or, otherwise said, how critical we are, works as a filter for the fine-grainedness of the comparison classes we consider. For instance, the more we learn and the more refined our palate becomes in wine tasting, the more distinctions we can make. This results in cutting up domains into more refined comparison bases: consider for instance how an occasional wine drinker would compare, e.g., Eiswein with Merlot, and how an expert would see these as incomparable sorts. Often the comparison base and comparison class associated to G in a given utterance are the same. In fact, we identify them whenever we have just general knowledge about the object under assessment.

On the basis of this way of looking at comparison bases and comparison classes, here is another distinction that will be useful.

6.2.3. Definition. [Homogeneous and heterogeneous adjectives]
Let G be some RGA.

1. G is *homogeneous* if an object can belong to at most one comparison base $N \in c(G)$.

2. If G is not homogeneous, it is called *heterogeneous*.

Examples of homogeneous adjectives are, for instance, *tall, expensive, hot*. If Alf is a tall man, Alf cannot as well be a tall tree. Meanwhile, a skilful mathematician may also be a skilful violinist. With this distinction, we can tell

[26]Here 'extension' just means "the class of things to which it is correctly applied".

[27]This is not necessarily a transitive relation. See the discussion of the Sorites paradox in subsection 6.1.3.

apart RGAs which have an intersective comparative from those which do not. In chapter 2, subsection 2.1.1, we said that for some gradable adjectives the corresponding comparative is intersective, as for instance with *tall*. From *If Alf is a taller jockey than Bert* and *Alf and Bert are men*, you infer *Alf is a taller man than Bert*. But for some gradable adjectives like *skilful* the comparative is non-intersective: from *If Alf is a more skilful pianist than Bert* and *Alf and Bert are carpenters*, you cannot infer *Alf is a more skilful carpenter than Bert*. Homogeneous adjectives have an intersective comparative because for every pair of objects there is only one possible comparison base. With these notions, if we endorse the observation concerning the prepositional phrase *as a X* as a means to introduce comparison bases we can see why for homogeneous adjectives it would be strange to say *Alf is tall as a man but not as a tree*, not so for heterogeneous adjectives: *Alf is skilful as a mathematician but not as a violinist*.

It is not easy to say how *tasty*, and *beautiful* fit in these categories. If we trust the observation concerning *as* and *for*, we can see that it not hard to say, for instance, that a certain dish is tasty *as a dessert* (instead of, e.g., as an entrée). This would suggest that *tasty* is heterogeneous. When we try the same with *beautiful*, the result is not as conclusive. One can say *Bea is beautiful as an angel*, but this relates to *Bea is as beautiful as an angel*. If one would think of $c(\text{beautiful}) = \{\text{painting, sculpture, woman}, \ldots\}$ then it seems that *beautiful* is homogeneous, for it would be strange to say *Bea is beautiful as a woman but not as a sculpture*. But on the one hand, the observation about *as* and *for* is, as it stands, a speculation. On the other hand, as noted above, method and expertise interact in how communities cut up comparison bases. So it can be controversial whether an N is a comparison base or a comparison class for G=*tasty*.

When comparison class and comparison base are left unspecified, it could be that enough information is available about $I(a)$, the object under assessment, to establish *the* relevant comparison base N. Then the default is to interpret $G(a)$ in the comparison class given by $I(N)$.

Note that in attributive judgments *a is a GN* (formally $GN(a)$), the relevant comparison class is not always given by the noun N.

(1) a. John owns an expensive BMW.[28]
    b. He is a wealthy son of a bitch

Example (1-a) does not necessarily mean that the car that John bought is expensive *for* a BMW. Nor does example (1-b) mean that he counts as wealthy compared to all other sons of bitches. Since the role of deprecatives such as s.o.b. in example (1-b) introduces further issues, let us focus on example example (1-a). This case is, we believe ambiguous. The speaker may want to say that John's new

[28]This example is similar to ex. (16) in Kennedy [2007]. The point he makes with this and the following examples in his paper is that the standard of comparison that is necessary for his model of gradability is not always fixed by the noun N.

BMW is expensive among BMWs, or that it is an expensive car which happens to be a BMW. We believe that this is an open issue if no surrounding discourse is given. What this example shows as well is that unless surrounding discourse eliminates this possibility, one can resolve the interpretation of the judgement by appealing to the maximal comparison base $N{=}c$ars.

For heterogeneous G, sometimes there is not a clear default comparison base like in the case of *skilful*, which means that in such case a comparison base has to be specified. For heterogeneous G like *tasty*, however, we seem to manage fine, at least much better than for *skilful*. Someone may say: *I don't have a clue of what this is, but it is tasty!*, and the addressee will not have trouble in getting the point of the assessment. Wherein the difference lies between *skilful* and *tasty* that could explain this difference is, we believe, lexical and not logical in nature.

At this point, we can already give a definition of the basic language we will focus on in this chapter.

6.2.4. Definition. [A formal language for evaluative judgements]
A language $\mathcal{L}$ has the following non-logical symbols:

i. a number of *individual constants a, b, c, ...*, among which *i, you, (s)he*,

ii. a number of *nouns* N, and

iii. a number of *(relative gradable) adjectives* G.

Every adjective G has an antonym $\breve{G}$ that is also an adjective. By definition $\breve{\breve{G}} = G$. The adjectives are subdivided in two ways: *homogeneous* vs. *heterogeneous* adjectives, and *weakly evaluative* versus *strongly evaluative* adjectives.

The set of sentences φ of $\mathcal{L}$ is the smallest set which includes:[29]

1. Sentences of the form $N(a)$.
2. Predicative judgements $G(a)$, $G\text{-}er(a, b)$ (to be read as *a is G-er than b*).[30]
3. $Find(G, x)(a)$ and $Find(G\text{-}er, x)(a, b)$, where $x \in \{i, you, (s)he\}$.
4. Sentences of the form $\neg\varphi$, for φ a sentence defined in (1)-(3).

With such a simple language, we can already make judgements close in meaning to *This is a cake, This is tasty, This cake is tasty, This is a suitcase, I find this suitcase heavy.* Note that *Find* is a relation determined by G between an agent and an object. So *Find* does not embed an unrestricted judgement as such.

[29] In appendix A we expand this language with logical connectives and first-order quantifiers.

[30] There is a slight sloppiness in this notation because here *a* stands for an object that we either point at, as in *This is tasty*, or that we determine by a noun phrase, as in *This cake is tasty.*

It is not a propositional attitude but an affective attitude. Once we give update rules, we can see how this is spelled out formally.

Now, to model the meaning of RGAs, we have to put in the picture the basic ingredients for intentional states. A *situation*, the building block of intentional states, does not just record the interpretation given so far to an adjective G and a comparative G-*er*, but also records tests which appear to be just like interpretation functions, but which record the affective responses underlying these.

6.2.5. Definition. [Situation]
Let $\mathcal{L}$ be a language as defined in 6.2.4. Fix a set $A = \{$*speaker, addressee, other*$\}$ of agents, and a non-empty set D of objects. Let $c(G)$ for every adjective G be a nonempty set of nouns N. Each $N \in c(G)$ determines a comparison base for G. A situation based on A and D and c is a pair $\langle I, T\rangle$, where:

1. I assigns:
   (a) to every individual constant a, an object $I(a) \in D$;
   (b) $I(i) =$ *speaker*, $I(you) =$ *addressee*, $I((s)he) =$ *other*;
   (c) to each noun N, a total function $I(N)$ from D into $\{\mathbf{yes}, \mathbf{no}\}$; if G is *homogeneous*, then for every $d \in D$ there is at most one $N \in c(G)$ such that $d \in I(N)$;
   (d) to each triple consisting of an adjective G, a noun $N \in c(G)$, and a subset $C \subseteq I(N)$, a partial function $I(G, N, C)$ from C into $\{\mathbf{yes}, \mathbf{no}\}$;
   (e) to each pair consisting of a comparative G-er and a noun $N \in c(G)$, a partial function $I(G\text{-er}, N)$ from $I(N) \times I(N)$ into $\{\mathbf{yes}, \mathbf{no}\}$.
2. T assigns:
   (a) to each triple consisting of an adjective G, a noun $N \in c(G)$, and an agent $x \in A$, a partial function $T(G, N, x)$ from N into $\{\mathbf{yes}, \mathbf{no}\}$;
   (b) to each triple consisting of a comparative G-er, a noun $N \in c(G)$ and an agent $x \in A$, a partial function $T(G\text{-er}, N, x)$ from $I(N) \times I(N)$ into $\{\mathbf{yes}, \mathbf{no}\}$.

The values $\{\mathbf{yes}, \mathbf{no}\}$ constituting the range of the interpretation function I and the test function T stand for something broader than truth values. They signal the response of the agent whose state we are describing to various sentences in various contexts. The value **yes** stands for agreement, and **no** for disagreement. We sometimes agree with someone, in particular with what she says, because we believe that what she says is true. We sometimes agree with someone because our responses are similar, for instance, when we listen to a piece music and we both love it (or hate it), or because we both have difficulty in lifting a suitcase. The values {**yes**, **no**} are used to model our reactions in this wider sense.

Let G be some RGA, N determine a comparison base for G, and C be some comparison class within $I(N)$. The interpretation function I specifies which elements d the agent judges to be G, that is when $I(G, N, C)(d) = \mathbf{yes}$. It specifies as well which elements the agent judges to be $\breve{G}$, when $I(\breve{G}, N, C)(d) = \mathbf{yes}$. And it also fixes which elements the agent judges to be neither G, nor $\breve{G}$, when both $I(G, N, C)(d) = \mathbf{no}$, and $I(\breve{G}, N, C)(d) = \mathbf{no}$. There may be a lot of objects in C that have not yet been evaluated, that is when both $I(G, N, C)(d)$ and $I(\breve{G}, N, C)(d)$ are undefined.

On top of this, the agents will call some elements G-er than some other elements, that is when $I(G\text{-}er, N)(d', d) = \mathbf{yes}$. Actually, when they consider d G and d' not G, or when they consider d not $\breve{G}$ and d' $\breve{G}$, they are committed to call d G-er than d'. This is enforced by the *Comparativity* constraint specified below.

The T function records for each G and comparison base N which objects the agent *finds* G. The 'T' stands for *testing*, which in the case of the adjective *tasty* amounts to tasting. The incorporation of these tests in the states enables us to integrate affective grip into the semantics, the response someone has when she checks for herself whether she finds something G. Different RGAs come with different tests, and for a particular adjective G the test will vary with the comparison base. The comparison classes do not come in. Test functions are concerned with the relation between the subject and the object: it matters what *kind* of object this is, but that is all. In principle, it does not matter how this object compares to other objects of the same kind. Actually, it does, but only in an indirect way. Previous experiences have surely shaped and developed the subject's taste in the course of time, but at a given moment, when asked whether she finds an object G, her response is all there is.

For simplicity, nouns are given a *total* interpretation. This way, we restrict ourselves to cases where the agents have complete information about the kind of objects they are dealing with. Of course, in reality this is not always the case, and a full development of the system would have to explain how exactly we proceed when this information is incomplete. But this way we can focus on the topic of this chapter, the interpretation of gradable adjectives.

Here are some constraints on the interpretation functions I. They determine the basic logical properties of gradable adjectives and their comparatives.

6.2.6. Definition. [Basic constraints]

1. *Transitivity:* If $I(G\text{-}er, N)(d, d') = \mathbf{yes}$ and $I(G\text{-}er, N)(d', d'') = \mathbf{yes}$, then $I(G\text{-}er, N)(d, d'') = \mathbf{yes}$
2. *Asymmetry:* If $I(G\text{-}er, N)(d, d') = \mathbf{yes}$, then $I(G\text{-}er, N)(d', d) = \mathbf{no}$.
3. *Monotonicity:* If $I(G, N, C)(d) = \mathbf{yes}$, and $I(G\text{-}er, N)(d', d) = \mathbf{yes}$, then $I(G, N, C)(d') = \mathbf{yes}$.

4. *Comparativity:*
   (a) If $I(G,N,C)(d) = \textbf{yes}$ and $I(G,N,C)(d') = \textbf{no}$, then $I(G\text{-}er,N)(d,d') = \textbf{yes}$
   (b) If $I(\breve{G},N,C)(d) = \textbf{no}$ and $I(\breve{G},N,C)(d') = \textbf{yes}$, then $I(G\text{-}er,N)(d,d') = \textbf{yes}$
5. *Antonymy:*
   (a) If $I(G\text{-}er,N)(d,d') = \textbf{yes}$ then $I(\breve{G}\text{-}er,N)(d,d') = \textbf{no}$[31]
   (b) If $I(G,N,C)(d) = \textbf{yes}$, then $I(\breve{G},N,C)(d) = \textbf{no}$[32]
6. *Tolerance:*[33] If $I(G\text{-}er,N)(d,d') = \textbf{no}$ and $I(G\text{-}er,N)(d',d) = \textbf{no}$, then $I(G,N,C)(d) = \textbf{yes/no}$ iff $I(G,N,C)(d') = \textbf{yes/no}$.
7. *Switch:* Suppose $C \subseteq C' \subseteq I(N)$. Then
   (+ -) There are $d \in C$ such that $I(G,N,C)(d) = \textbf{yes}$ and $I(G,N,C')(d) = \textbf{no}$ only if there are $d' \in C' \setminus C$ such that $I(G,N,C')(d') = \textbf{yes}$;
   (- +) There are $d \in C$ such that $I(G,N,C)(d) = \textbf{no}$ and $I(G,N,C')(d) = \textbf{yes}$ only if there are $d' \in C' \setminus C$ such that $I(G,N,C')(d') = \textbf{no}$.

Ideally, for a given RGA G, comparison base N, and comparison class C, the end result of the evaluation process would be a partition of C in a number of equivalence classes, each consisting of objects that are *equally* G. These equivalence classes should be linearly ordered from the equivalence class containing the G-est objects on the one end to the equivalence class containing $\breve{G}$-est objects on the other end. There can be several equivalence classes containing objects that are G (some containing objects that are *very* G, other containing objects that are G, but maybe less so than the very G, etc.), several equivalence classes containing objects that are $\breve{G}$, and in between these there may be a number equivalence classes containing objects that are neither G nor $\breve{G}$. Unfortunately, this ideal is not always attainable.[34] In practice, and in line with the *Tolerance* constraint, our agents will consider two objects with property N *equally* G iff there is no significant[35] difference between them: both $I(G\text{-}er,N)(d,d') = \textbf{no}$ and $I(G\text{-}er,N)(d',d) = \textbf{no}$. There is nothing wrong with this as long as the following holds:

[31] In many cases this can be strengthened to If $I(G\text{-}er,N)(d,d') = \textbf{yes}$ then $I(\breve{G}\text{-}er,N)(d',d) = \textbf{yes}$. But *beautiful* and its antonym *ugly* show that this is not always the case.

[32] But it is certainly possible that both $I(G,N,C)(d) = \textbf{no}$ and $I(\breve{G},N,C)(d) = \textbf{no}$.

[33] Here the assumption that d and d' are in a comparison base N if and only if they are comparable is essential.

[34] What follows is very much inspired by Dummett [1975].

[35] We abstract away from the kind of difference (observational, or otherwise) that matters here. We also neglect the fact the level of granularity is an important contextual factor. (There is a story here with the moral that as the comparison class gets larger, the granularity level should get finer.)

(*) For all $d, d', d'' \in C$, if $I(G\text{-}er, N)(d, d') = \mathbf{no}$ and $I(G\text{-}er, N)(d', d'') = \mathbf{no}$, then $I(G\text{-}er, N)(d, d'') = \mathbf{no}$.

6.2.7. Proposition. *Let $\langle I, T\rangle$ be a situation. Define:*

$\text{Equally}(G, N, C)(d, d')$ *iff* $I(G\text{-er}, N)(d, d') = \mathbf{no}$ *and* $I(G\text{-er}, N)(d', d) = \mathbf{no}$

Suppose I(G-er, N, C) is total. Then, given Transitivity *and* Asymmetry*, Equally(G, N, C) is an equivalence relation on C iff (*) holds.*

The point is that in many comparison classes (*) will *not* hold. It may vary well happen that for some $d, d', d'' \in C$ there is no significant difference between d and d', nor between d' and d'', but there is a significant difference between d. This means that in many cases one cannot clearly distinguish equivalence classes. Everything is blurred. In the worst case this may even lead to the Sorites paradox, where at the beginning of a chain of pairwise indistinguishable objects, there is an object that is clearly G whereas at the and there is an object that is clearly $\breve{G}$. As we already indicated, there is no reason to panic here. This is what vagueness amounts to. The fact that in some cases the machinery runs down does not mean that the machinery is useless.

Note that *Switch* is a cross-contextual constraint. To see its effects consider this example.

6.2.8. Example. Let $\mathcal{D} = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12\}$. Consider the sets $C = \{1, 3, 4, 7, 9, 10\}$, and $C' = \{1, 3, 4, 7, 9, 10, 12\}$.

(In the following we set a number in boldface if it is small according to the interpretation in question.)

Given (+ -) you can have:

$I(\textit{small, number}, C)$: $\{\mathbf{1}, \mathbf{3}, 4, 7, 9, 10\}$, and
$I(\textit{small, number}, C')$: $\{\mathbf{1}, \mathbf{3}, 7, 9, 10, 12\}$

and you can also have:

$I(\textit{small, number}, C)$: $\{\mathbf{1}, \mathbf{3}, 7, 9, 10\}$, and
$I(\textit{small, number}, C')$: $\{\mathbf{1}, \mathbf{3}, \mathbf{4}, 7, 9, 10, 12\}$

but this is not allowed:

$I(\textit{small, number}, C)$: $\{\mathbf{1}, \mathbf{3}, \mathbf{4}, 7, 9, 10\}$, while
$I(\textit{small, number}, C')$: $\{\mathbf{1}, \mathbf{3}, 4, 7, 9, 10, 12\}$.

If you have first decided that 1, 3, and 4 are the small numbers in the set $\{1, 3, 4, 7, 9, 10\}$, you are not allowed, when 12 is added to this set, to call only 1 and 3 small.

Switch is not the only constraint with cross-contextual effects. Since the interpretation of the comparative does not depend on the comparison class (but only on the comparison base), the other constraints have cross contextual effects, too. For example *Comparativity* together with *Asymmetry* imply the following.

6.2.9. Proposition (No reversal).
If $I(G,N,C)(d) = \textbf{yes}$ *and* $I(G,N,C)(d') = \textbf{no}$*, then for no* $C' \subseteq I(N)$*,* $I(G,N,C')(d') = \textbf{yes}$ *and* $I(G,N,C')(d) = \textbf{no}$*.*

Note that all the constraints defined above are imposed on the interpretation function I. What holds for I, need not hold for T. The *Transitivity* constraint says that an agent who accepts that x is taller than y, and y is taller than z, has to accept that x is taller than z. But from this it does not follow that an agent who accepts that somebody, say John, *finds* x taller than y, and that John finds y taller than z, should accept that John *finds* x taller than z.

The constraints given above hold for all RGAs. The next one does not, it is specific for strongly evaluative adjectives. We discussed this constraint informally in chapter 4, subsection 4.1.1, when we said that unless we have our own experience with the object, you cannot formulate an aesthetic judgement (of beauty, of taste, etc.) As will become clear in due course, it enforces that for strongly evaluative adjectives G, an agent can only accept $G(a)$ if (s)he accepts $\mathit{Find}(G,i)(a)$. This does not work the other way around. You can find something tasty, without having to commit yourself to the statement that it *is* tasty.

6.2.10. Definition. [Experience]
If G is strongly evaluative, the following holds.

1. If $d \in \operatorname{dom} I(G,N,N)$[36], then $d \in \operatorname{dom} T(G,N,\mathit{addressee})$, and $I(G,N,N)(d) = T(G,N,\mathit{addressee})(d)$.[37]

2. If $\langle d,d'\rangle \in \operatorname{dom} I(G\text{-}er,N)$, then $\langle d,d'\rangle \in \operatorname{dom} T(G\text{-}er,N,\mathit{addressee})$ and $I(G\text{-}er,N)(d,d') = T(G\text{-}er,N,\mathit{addressee})(d,d')$.

When $I(G,N,N)(d) = \textbf{yes}$, this means that d is judged G relative to all objects of the kind N. This is as close as "absolutely G" a RGA can get. For weakly evaluative adjectives there is no logical relation between a statement of the form $G(a)$ and the corresponding $\mathit{Find}(G,i)(a)$ (the same goes for the comparative). As the Müller-Lyer example illustrates, they are logically independent. Still, if your personal experience does not correspond to what you believe to be actually the case, you will not feel happy, psychologically speaking. In such a case your state is not harmonious in the following sense of the word.

6.2.11. Definition. [Harmony]
Suppose $\langle I,T\rangle$ is a situation. $\langle I,T\rangle$ is harmonious if there are no G, N, and $d,d' \in D$ such that $I(G,N,N)(d) = \textbf{yes}/\textbf{no}$ while $T(G,N,\mathit{addressee})(d) = \textbf{no}/\textbf{yes}$, or $I(G\text{-}er,N)(d,d') = \textbf{yes}/\textbf{no}$ while $T(G\text{-}er,N,\mathit{addressee})(d,d') = \textbf{no}/\textbf{yes}$.

[36] $\operatorname{dom} I(G,N,C)$ is the set of all $d \in C$ for which $I(G,N,C)(d)$ is defined.

[37] Recall that the addressee is the 'owner' of the state, the agent whose state we are are trying to update.

Disharmonious states are relatively rare. To a large extent, our experience and knowledge about the world remain in tune with one another.

In the following when we write 'situation', we will usually assume that we are talking about a state that satisfies the constraints mentioned above.[38]

We can now develop the notion of an intentional state on which update rules will operate. In particular we can say what the expectations of an agent will be, given her current situation and evaluations.

6.2.12. Definition. [Basic state] A basic state σ based on A and D has two components $\sigma = \langle \alpha_\sigma, \epsilon_\sigma \rangle$. The component α_σ will model the current evaluations, ϵ_σ will model the expectations about further evaluations. Both $\alpha_\sigma = \langle I_{\alpha_\sigma}, T_{\alpha_\sigma} \rangle$ and $\epsilon_\sigma = \langle I_{\epsilon_\sigma}, T_{\epsilon_\sigma} \rangle$ are situations in the sense of definition 6.2.5. They are related as follows.

1. For every noun N, it holds that $I_{\alpha_\sigma}(N) = I_{\epsilon_\sigma}(N)$.

2. For every adjective G, it holds that $I_{\alpha_\sigma}(G, N, C) \subseteq I_{\epsilon_\sigma}(G, N, C)$.

We can now partly formalise the normativity of taste, what we here call *Universality* as inspired by Kant, as another constraint on strong evaluatives.[39]

[38]But we do not want to claim that the list of constraints is exhaustive. Here is a constraint we could include but which we leave here open as a suggestion given that we do not have a systematic way to see which strongly evaluatives fit, besides this case: *If Mary is more beautiful than Ann, neither of them is ugly.*

- Contrastivity: If G is strongly evaluative, the following holds. If $(G\text{-}er)(d, d') = \mathbf{yes}$, then $I(\breve{G})(d) = I(\breve{G})(d') = \mathbf{no}$.

However, contrastivity is not as generalised as it may seem at first, when one considers, e.g., *good, better vs. bad, worse.* (Cf., Bierwisch [1989], p. 89 et ss.)

Another constraint that is commonly thought to hold for what we call weakly evaluatives is reversal. If Alf is taller than Bea, then Bea is shorter than Alf. But if a cake is tastier than a pie, it is not the case that the pie is more disgusting than the cake.

- Contrary reversal: If G is weakly evaluative, the following holds. If $I(G\text{-}er, N)(d, d') = \mathbf{yes}$ then $I(\breve{G}\text{-}er, N)(d', d) = \mathbf{yes}$

However, constructions involving *short* seem to go against this feature. When we say *Alf is as short as Bea*, there is a tendency to think that Alf and Bea are short.

[39]In the system the *Universality* constraint comes to capture part, but not the totality of the Kantian insight on the matter. Two aspects of the Kantian insight are left aside. On the one hand, the *Universality* constraint is weaker than the Kantian one because in the Kantian case, we get expectations that reach the whole community. My unrestricted judgement of taste lays down the expectation that others agree with me, with my appraisal, but also that others endorse my expectations as such, so that they lay down on further people the expectations I lay down on them. The community created by the *Universality* constraint as defined above is tied by weaker bonds because it concerns the responses one expects others should have, but it does not require that, beyond such responses, these others share our normative expectations projecting them onto further people. The reason for this limitation is mostly technical in nature because dealing with this would require a means to represent different epistemic attitudes, and we prefer to

6.2.13. Definition. [Universality]
If G is strongly evaluative and $I_{\alpha_\sigma}(G, N, N)(d)$ is defined, then for all $x \in A$, $T_{\epsilon_\sigma}(G, N, x)(d) = I_{\alpha_\sigma}(G, N, N)(d)$.

Similarly, if G is strongly evaluative and $I_{\alpha_\sigma}(G\text{-}er, N)(d, d')$ is defined, then for all $x \in A$, $T_{\epsilon_\sigma}(G\text{-}er, N, x)(d, d') = I_{\alpha_\sigma}(G\text{-}er, N)(d, d')$.

The *Universality* constraint appears at first to be specific for strong evaluatives. If you judge that a painting is beautiful you will expect me to find it beautiful, that is what the above principle enforces. If you judge that a suitcase is heavy, you need not expect me to find it heavy.

Note that this constraint only enforces that if you judge something tasty in the broadest possible way (i.e., when the comparison class coincides with the comparison base), you will expect others to find it tasty. As things stand now, you do not have such expectations when the comparison class is restricted, i.e., smaller than the maximal comparison base. So, if you think that a particular wine is tasty, you will expect other people to find it tasty as well. But if you think that a particular wine is tasty for a supermarket wine, you have no such normative expectations about what other people should find. We could have stipulated that the *Universality* constraint applies to all comparison classes, not just to comparison bases. That we did not do so is a consequence of our idea that the outcome of a test is not contextually determined.[40] One can taste a wine and find it delicious, or tasty, or not tasty, or be indifferent to it. Then one's *judgment* could be that for a supermarket it is tasty, but there is no such thing as *finding* it tasty-for-supermarket-wine, let alone to expect others to find it tasty-for-a-supermarket wine.

A specific constraint for weakly and strongly evaluatives is set in the following definition. The basic idea behind minimal states is to represent a situation in which we have as yet made no evaluations.

6.2.14. Definition. [Minimal state]
Fix a domain D, and an interpretation I for the nouns N. The minimal state μ based on A, D, and I is a basic state $\langle \alpha_\mu, \epsilon_\mu \rangle$, in which the following holds.

1. for all nouns $I_{\alpha_\mu} = I_{\epsilon_\mu} = I(N)$;
2. for all adjectives G, nouns $N \in c(G)$, and $x \in A$, $domI_{\alpha_\mu}(G\text{-}er, N) = domI_{\epsilon_\mu}(G\text{-}er, N) = domT_{\alpha_\mu}(G\text{-}er, N, x) = domT_{\alpha_\mu}(G\text{-}er, N, x) = \emptyset$.

keep the model simple at the moment. On the other hand, the *Universality* constraint is limited because it does not yield the strong reading of reflective judgement we supported in chapter 4. There, the claim was that all judgement is possible by virtue of merely reflective judgement. In the terms of this chapter, the question is: in what sense are weakly evaluative judgements possible by virtue of strongly evaluative ones? We are leaving this question unanswered here.

[40] That is, our affective reactions are rather primitive, as we argued in chapter 5. Of course, context plays a role, but here context relates to situatedness and not (directly) to how refined is our knowledge of objects in a domain.

3. *Normality:* for all adjectives G, nouns $N \in c(G)$, $C \subseteq I(N)$, and $x \in A$, $domI_{\alpha_\mu}(G, N, C) = domT_{\alpha_\mu}(G, N, C, x) = \emptyset$,
   (a) for weakly evaluatives, for all $d \in D$, $I_{\epsilon_\mu}(G, N, C)(d) = T_{\epsilon_\mu}(G, N, C, x)(d) = \mathbf{no}$, and $I_{\epsilon_\mu}(\breve{G}, N, C)(d) = T_{\epsilon_\mu}(\breve{G}, N, C, x)(d) = \mathbf{no}$;
   (b) for strongly evaluatives, $I_{\epsilon_\mu}(G, N, C) = T_{\epsilon_\mu}(G, N, C, x) = \emptyset$.

A useful abstraction, this stage shows how we would proceed if we had to start from scratch. We start out expecting things to be *normal*, neither G nor $\breve{G}$.[41] Because of this principle, a sentence of the form *a is G* will express something one would not expect, something salient, something surprising, and therefore worth mentioning. In the rules defined below, we build in that we keep expecting things to be normal until we learn otherwise.

6.2.2 Updating with unrestricted judgements

We are ready now to discuss the update conditions for atomic sentences, the core of the model as preannounced in definition 6.2.1. Consider first a sentence of the form $G(a)$ with G weakly evaluative. For this sentence to be interpretable, it has to be clear to the addressee what the relevant comparison base N and comparison class C are. Then updating the state σ in the context $\langle N, C\rangle$ starts with setting the value of $I_{\alpha_\sigma}(G, N, C)(I(a))$ to **yes**. Of course, if the addressee cannot do so without getting in conflict with the constraints set on the use of G, the statement should not be accepted. Suppose, for example, that $I_{\alpha_\sigma}(G, N, C)(I(b)) = \mathbf{no}$ and $I(G\text{-er}, N)(b, a) = \mathbf{yes}$. Then setting $I_{\alpha_\sigma}(G, N, C)(I(a))$ to **yes** conflicts with *Monotonicity*. Suppose you have accepted *Alf is tall*, and *Bea is taller than Alf*. You are then bound to call Bea tall, and if someone says the opposite you will not accept her judgement. Now, suppose that no such conflicts arise. Then in many cases accepting $G(a)$ will lead to more changes. The new state will have to satisfy the constraints. Again, think of *Monotonicity*. If you extend $I(G, N, C)$ with the pair $\langle I(a), \mathbf{yes}\rangle$, and $I(G\text{-er}, N)(c, a) = \mathbf{yes}$, you will have to add the pair $\langle I(c), \mathbf{yes}\rangle$ to $I(G, N, C)$ as well (assuming it is not already there).

Spelling this out formally is rather cumbersome. Before we do so, we note the following.

6.2.15. Proposition. *Let $\mathcal{I}$ be some set of interpretations such that each $I \in \mathcal{I}$ satisfies the basic constraints on interpretations. Consider I' defined by*

$I'(G, N, C)(d) = \mathbf{yes}$ *iff for every* $I \in \mathcal{I}, I(G, N, C)(d) = \mathbf{yes}$
$I'(G, N, C)(d) = \mathbf{no}$ *iff for every* $I \in \mathcal{I}, I(G, N, C)(d) = \mathbf{no}$

Then I' satifies the constraints on interpretations.

[41] This echoes the assumption that nature is intelligible for our cognitive faculties, something that as we saw in chapter 4 (esp. section 4.3), both Kant and Wittgenstein assume.

Proof: The proof is straightforward.

If there is an extension of $I(G)$ with the pair $\langle I(a), \mathbf{yes}\rangle$ satisfying the constraints, then there is a smallest extension with these properties. Hence, we can be sure that if the interpretation function can be adapted to the constraints, there is a unique *minimal* way to do so. Given this, the following is a proper definition.

6.2.16. Definition. [Update rules for weakly evaluatives]
Let $\sigma = \langle \alpha, \epsilon \rangle$ be a basic state.

1. $\sigma[\![G(a), N, C]\!] = \emptyset$ if there is no extension J of I_{α_σ} such that $J(G, N, C)(I(a)) = \mathbf{yes}$ and the basic constraints are satisfied.

   Otherwise, $\sigma[\![G(a), N, C]\!] = \sigma'$ where σ' is determined as follows.

   (a) $I_{\alpha_{\sigma'}}$ is the smallest extension J of I_{α_σ} such that $J(G, N, C)(I(a)) = \mathbf{yes}$ and the basic constraints are satisfied.

   (b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$.

   (c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that:

      i. $J(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$ for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$;

      ii. $J(G\text{-}er, N)(d, d') = \mathbf{yes}/\mathbf{no}$ for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)(d, d')$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N)(d, d') = \mathbf{yes}/\mathbf{no}$;

      iii. the constraints are satisfied.

   (d) $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$.

2. $\sigma[\![G\text{-}er(a, b), N]\!] = \emptyset$ if there is no extension J of I such that $J(G\text{-}er, N)(I(a), I(b)) = \mathbf{yes}$ and the constraints are satisfied.

   Otherwise $\sigma[\![G\text{-}er(a, b), N]\!] = \sigma'$ where σ' is determined as follows.

   (a) $I_{\alpha_{\sigma'}}$ is the smallest extension J of I_{α_σ} such that $J(G\text{-}er, N)(I(a), I(b)) = \mathbf{yes}$ and the constraints are satisfied.

   (b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$.

   (c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that:

      i. $J(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$ for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$;

      ii. $J(G\text{-}er, N)(d, d') = \mathbf{yes}/\mathbf{no}$ for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N) = \mathbf{yes}/\mathbf{no}$;

      iii. the constraints are satisfied.

   (d) $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$.

We did not prepare the reader for the two (c) clauses in the definition above. They are there to make sure that the agents keep[42] expecting things to be *normal* if what they learn does not force them to think otherwise. When you have come to accept that Alf is tall, you will have to give up the expectation that he was neither tall nor short, but you may perhaps still go on expecting Bert is neither tall nor short. But notice that by *Comparativity* this means you will now expect Alf to be taller than Bert. And so, if by any chance the next thing you learn is that Bert is taller than Alf, you will have to give up this new expectation right away. The (c) clauses take care of this and similar situations. Expectations supplement our evaluations.

Notice that this definition is independent of there already being a line drawn between the people we call *tall* and those we call *not tall*. There might be a line already drawn, but it need not be. This is an open challenge to the widespread assumption that to model gradable adjectives, it is necessary to isolate a standard of comparison.

For unrestricted judgements featuring strongly evaluative adjectives, it will be a *presupposition* for $G(a)$ to be accepted that you have tested a for yourself (and for the case that $C = I(N)$ it is a necessary condition that this test had a positive outcome). This way the *Experience constraint* will be satisfied. To satisfy the *Universality* constraint, the expectations in T_{ϵ_σ} have to be updated. In other respects, the conditions are the same as for weak evaluatives.

6.2.17. Definition. [Update rules for strongly evaluatives]
Let $\sigma = \langle \alpha, \epsilon \rangle$ be a basic state.

1. $\sigma[\![G(a), N, C]\!]$ exists only if $I(a) \in dom\, T(G, N, \mathit{addressee})$. If so, the following holds.

   $\sigma[\![G(a), N, C]\!] = \emptyset$ in each of the following cases.

   (a) $C = I(N)$ and $T_{\alpha_\sigma}(G, N, \mathit{addressee})(I(a)) = \mathbf{no}$, or

   (b) there is no extension J of I_{α_σ} such that $J(G, N, C)(I(a)) = \mathbf{yes}$ and the basic constraints are satisfied, or

   (c) $C = I(N)$ and there is no extension T of T_{ϵ_σ} such that for all $x \in A$, $T(G, N, x)(I(a)) = \mathbf{yes}$.

   Otherwise, $\sigma[\![G(a), N, C]\!] = \sigma'$ where σ' is determined as follows:

   (a) $I_{\alpha_{\sigma'}}$ is the smallest extension J of I_{α_σ} such that $J(G, N, C)(I(a)) = \mathbf{yes}$ and the constraints are satisfied.

   (b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$.

[42] Here, we assume that agents start out from the minimal state, and that the only changes are changes resulting from the updates we are defining here.

(c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that:

i. $J(G, N, C')(d) =$ **yes**/**no** for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) =$ **yes**/**no**;

ii. $J(G\text{-}er, N)(d, d') =$ **yes**/**no** for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)(d, d')$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N)(d, d') =$ **yes**/**no**;

iii. the constraints are satisfied.

(d) If $C = I(N)$, then $T_{\epsilon_{\sigma'}}$ is the smallest extension T of T_{ϵ_σ} such that for all $x \in A$, $T(G, N, x)(I(a)) =$ **yes**. Otherwise, $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$.

2. $\sigma[\![G\text{-}er(a, b), N]\!]$ exists only if $\langle I(a), I(b)\rangle \in dom\, T(G\text{-}er, N, \mathit{addressee})$. If so, the following holds.

$\sigma[\![G\text{-}er(a, b), N]\!] = \emptyset$ in each of the following cases.

(a) $T_{\alpha_\sigma}(G\text{-}er, N, \mathit{addressee})(I(a), I(b)) =$ **no**; or

(b) there is no extension J of I_{α_σ} such that $J(G\text{-}er, N)(I(a), I(b)) =$ **yes** and the constraints are satisfied; or

(c) there is no extension T of T_{ϵ_σ} such that for all $x \in A$, $T(G\text{-}er, N, x)(I(a), I(b)) =$ **yes**.

Otherwise $\sigma[\![G\text{-}er(a, b), N]\!] = \sigma'$ where σ' is determined as follows:

(a) $I_{\alpha_{\sigma'}}$ is the smallest extension J of I_{α_σ} such that $J(G\text{-}er, N)(I(a), I(b)) =$ **yes** and the constraints are satisfied.

(b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$

(c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that:

i. $J(G, N, C')(d) =$ **yes**/**no** for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) =$ **yes**/**no**;

ii. $J(G\text{-}er, N)(d, d') =$ **yes**/**no** for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N) =$ **yes**/**no**;

iii. the constraints are satisfied.

(d) $T_{\epsilon_{\sigma'}}$ is the smallest extension T of T_{ϵ_σ} such that for all $x \in A$, $T(G, N, x)(I(a), I(b)) =$ **yes**.

We highlight two features of these rules which will be important in the analysis of faultless disagreements we will give after we introduce negation in subsection 6.2.4 below. First, accepting such unrestricted judgements presupposes having a response, either **yes** or **no**, to the test associated with the adjective. Updating one's state with *This cake is tasty* is otherwise not really different from updating our state with *This cake is heavy* or with *Alf is tall*. Second, a successful update requires that we expect of other interlocutors that they have a response to the

test matching ours. This will be important to see why there are taste disputes and other disagreements which are hard to resolve.

Before we move on, let us briefly discuss the notion of evaluativity that is sketched in the system, and how it compares with the ones mentioned in chapter 2, section 2.2. For us, evaluativity is mainly related to a change in our expectations, expectations about things and about others. Suppose I am told that Alf is a fast runner, and that he completes a marathon in less than 3h. If I do not know what the median time for marathon runners is nowadays, I will not be quite impressed, I do not know what is normal. Now you tell me that nowadays median time for runners is about 4h 28min. So Alf's finishing time is salient, then I say *Oh, Alf is a fast runner!* This does not lead to any specific updates in my findings (actually, if I see Alf running on the street, I may not be that impressed because all I have seen so far are sprint runners), nor in my expectations about other people's findings.[43] For strongly evaluatives like *tasty* or *beautiful*, expectations play a crucial role, but one which is different to noticing that something is salient in the sense that it is not normal. Expectations here play a normative role because they concern what we expect of our interlocutors. When I am told *This dessert is tasty*, I need to test it for myself, to test it. If my test is positive, then I can say *Oh yes, this dessert is tasty!* But then I expect that other people's tests will match my own, regardless of whether I know that, in fact, they do not. Strongly evaluatives mark salience because they signal that something, in this case a dessert, poses certain demands on all of us that bind us together, that is there for us all.

Think now of evaluativity as given by the dimensional/evaluative typology. Where Bierwisch saw a division between dimensional and evaluative interpretations of adjectives like *heavy*, a division that then led many to claim that some RGAs are polysemous, we claim that there is only *one* update function working on input coming from the tests T we pass, and at the same time on information which hinges on logical constraints affecting the $I's$. The claim we can distill from this is that for us, no unrestricted judgement featuring weakly evaluatives is "merely dimensional" or "merely evaluative, as Bierwisch would have it.

[43] We could have formulated the following constraint for weak evaluatives, similar but not identical to definition 6.2.13:

- Weak Universality
  If G is weakly evaluative and $I(G, N, N)(d)$ is defined, then for all $x \in A$, if $T(G, N, x)(d)$ is defined, $T_{\epsilon_\sigma}(G, N, x)(d) = T(G, N, x)(d)$, and if $T(G, x)(d)$ is not defined, $T_{\epsilon_\sigma}(G, N, x)(d) = I(G, N, N)(d)$.

What is a normative expectation in the case of strongly evaluatives would be a default expectation in the case of weak evaluatives. For a weakly evaluative adjective, if you accept *Alf is fast* and you have no evidence to the contrary, you will expect every agent (including yourself) to *find* Alf fast. *Universality* is weaker in this case because for a strongly evaluative adjective, expectations hold even after you have learnt that other's findings are not in tune with your own.

When you think of evaluativity as metalinguistic usage, you should see that in our system evaluativity is not sketched as the power to induce metalinguistic negotiations, or to have interpretational uses, for this is something that just about any judgement may lead to in the update setting.

Last but not least, consider evaluativity as valence in attitude. Tests are vital for our own take on evaluativity, but the positive or negative outcome of the test should not be seen as a positive or negative emotional valence. Furthermore, for us the speaker's tests matter but only to some extent because when it comes to interpreting an unrestricted judgement like *This is tasty*, tests that mainly matter are the addressee's.

6.2.3 Updating with restricted judgements

Now we consider restricted judgements, i.e., sentences of the form *x finds y G*, like *I find this cake tasty*, *You find this suitcase heavy*, or *She finds this exercise difficult*. The rules work the same for weakly and strongly evaluative adjectives.

The language given in definition 6.2.4 supplies translations for sentences of the form *x finds y G*, but not for *x finds y not G*, or for *x finds y G and H*. Of course, a fully fledged theory should supply a means to do so. We could and would do so by introducing complex predicates, but it would lead us too far away from our main goals to so here. What is important here, though, is that we would not do it by turning *Find* into a relation between an agent and a proposition.

In our system sentences of the form $\mathit{Find}(G, x)(a)$ carry the presupposition that the agent $I(x)$ has tested the G-ness of $I(a)$ for him/herself. To find the pie tasty, you must have tasted it; to find the exercise difficult, you must have tried it, to find the song terrible, you must have listened to it. If there has been such a test, then the sentence is acceptable if this test had a positive outcome, and not acceptable if this test had a negative outcome.[44] As we explained when we introduced the test functions, the only contextual factor that is important here is the comparison *base*. The comparison classes do not come in.

6.2.18. Definition. [Update rule for restricted judgements]
Let $\sigma = \langle \alpha, \epsilon \rangle$ be a basic state.

1. $\sigma[\![\mathit{Find}(G, x)(a), N]\!]$ is determined as follows.

   (a) Suppose $x \in \{i,$ *(s)he*$\}$.
   Then if $T(G, N, I(x))(I(a)) = \mathbf{no}$, $\sigma[\![\mathit{Find}(G, x)(a), N]\!] = \emptyset$.
   Otherwise, $\sigma[\![\mathit{Find}(G, x)(a), N]\!] = \sigma'$ where σ' is determined as follows.

      i. $I_{\alpha_{\sigma'}} = I_{\alpha_\sigma}$

[44] Actually, on our account *x does not find a G* means the same as *x finds a not G*. $\neg\mathit{Find}(G, x)(a)$ carries the presupposition that a test has been taken (just like $\mathit{Find}(G, x)(a)$ of course), and states that the outcome was not positive. See subsection 6.2.4 for details.

ii. $T_{\alpha_{\sigma'}}$ is the smallest extension T of T_{α_σ} such that $T(G, N, I(x))(I(a)) = \mathbf{yes}$

iii. $I_{\epsilon_{\sigma'}} = I_{\epsilon_\sigma}$

iv. $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$

(b) Suppose $x = you$.

If $\langle I(a) \rangle \notin dom(T(G, N, addressee))$, $\sigma[\![Find(G, you)(a), N]\!]$ is not defined.

If $T(G, N, addressee)(I(a)) = \mathbf{yes}$,
$\sigma[\![Find(G, you)(a), N, C]\!] = \sigma$.
And if $T(G, N, addressee)(I(a)) = \mathbf{no}$,
$\sigma[\![Find(G, you)(a), N]\!] = \emptyset$.

2. $\sigma[\![Find(G\text{-}er, x)(a, b), N]\!]$ is determined as follows.

(a) Suppose $x \in \{i,$ *(s)he*$\}$.

Then if $T(G\text{-}er, N, I(x))(I(a), I(b)) = \mathbf{no}$,
$\sigma[\![Find(G\text{-}er, x)(a, b), N]\!] = \emptyset$.
Otherwise, $\sigma[\![Find(G\text{-}er, x)(a), N]\!] = \sigma'$ where σ' is determined as follows.

i. $I_{\alpha_{\sigma'}} = I_{\alpha_\sigma}$

ii. $T_{\alpha_{\sigma'}}$ is the smallest extension T of T_{α_σ} such that $T(G\text{-}er, N, I(x))(I(a)) = \mathbf{yes}$

iii. $I_{\epsilon_{\sigma'}} = I_{\epsilon_\sigma}$

iv. $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$

(b) Suppose $x = you$.

Then, if $\langle I(a), I(b) \rangle \notin dom(T(G\text{-}er, N, addressee))$,
$\sigma[\![Find(G\text{-}er, you)(a, b), N]\!]$ is not defined.
Otherwise, if $T(G\text{-}er, N, addressee)(I(a)) = \mathbf{yes}$,
$\sigma[\![Find(G\text{-}er, you)(a, b), N]\!] = \sigma$.
And if $T(G\text{-}er, N, addressee)(I(a)) = \mathbf{no}$,
$\sigma[\![Find(G\text{-}er, you)(a, b), N]\!] = \emptyset$.

The general idea behind these rules is that accepting a restricted judgement does not thereby lead us to call *a G simpliciter*. The (b) rules shows that when it comes to second-person judgements, it seems all we can do is trust the addressee because it *seems* she has the last word concerning her responses. We say that it seems because the (a) rules shows that it is not true that agents have the last word concerning their responses, since we interpret first- and third-person restricted judgement on the basis of what our states record about their tests. If we have reasons to think that the speaker's or the third person's responses to *a* do

not match their judgements, we should protest and reject the update. Of course, we are not the ultimate authorities concerning the responses of others, but nor are they about their own.[45] This may be infrequent among respectful adults, but surely more frequent outside the circles of adult and polite talk, for instance between parents and children, or among youngsters. One is bound by trust because not every experience has a definite and determinate set of visible manifestations, but people's speech and action have a clear impact on what claims concerning their experience we are ready to accept ourselves. We have left out of consideration $\sigma[\![\mathit{Find}(G, \mathit{you})(a), N, C]\!]$ undefined if $I(a) \notin \mathit{dom}(T(G, N, C, \mathit{addressee}))$, because, as we said above, we think that finding something of an object *presupposes* that you have had at least one experience with the object under assessment.

These rules may suggest that *Find* only licenses matters of taste and not matters of fact. However, our picture is a bit more complex than this because even though we distinguish I's from T's, we see as well that these components of our update rules are related, entrenched. Our conception supports as well the position[46] according to which the criterion fixing what can be embedded under *Find* is semantic, rather than syntactic. You need the $T's$.

6.2.4 Adding negation

Agents can accept a statement, reject a statement, or be indifferent to it. Accepting *not* φ means rejecting φ, rather than not accepting φ. In such a partial set up, one cannot define what an update with *not* φ amounts to starting from the update with φ, because from the latter one can only infer what it is to not accept φ, but not what it means to reject φ. We will have to complicate matters a bit. So far, we have been dealing only with positive updates, updates that result in accepting a certain statement. Let's write $\sigma[\![\varphi]\!]^+$ rather than $\sigma[\![\varphi]\!]$ for these. Parallel to these, we will also define negative updates, updates that result in rejecting a statement, and write $\sigma[\![\varphi]\!]^-$ for these. Once these are available, we can define a positive update with $\neg\varphi$ as a negative update with φ and vice versa, like so:

$$\sigma[\![\neg\varphi]\!]^+ = \sigma[\![\varphi]\!]^-$$
$$\sigma[\![\neg\varphi]\!]^- = \sigma[\![\varphi]\!]^+$$

It is pretty straightforward to specify the negative correlates of definitions 6.2.16, 6.2.17, and 6.2.18. Just replace the occurrences of **yes** in these definitions by an occurrence of **no**, and vice versa.

In many systems dealing with vague adjectives, a sentence like *John is tall* can be true, false, or undefined, where the latter means 'neither tall, nor not tall, but something in between'. Given the definitions above, that is not how things

[45] This stands against the idea that agents have privileged or infallible access to their experiences, an idea that many of the existing accounts for PPTs endorse.

[46] Defended by Collins [2013], against Sæbø [2009].

work out here. It could be that you do not know anything about John's height. In that case your state will support neither *John is tall*, nor *John is not tall*. Or if in such a situation I tell you *John is tall*, you may be unwilling to accept my statement just because you do not trust me. But that does not necessarily mean that you reject my statement. (You would do that if you thought that John is not tall.) In this system, when you think that John is 'something in-between', this does not mean that you think that John is something in between tall and not tall, but something in between tall and short. You reject both *John is tall* and *John is short*, and you accept that John is neither tall nor short.

So what does our system say about faultless disagreement? Does it accommodate the fact that for weakly evaluatives in comparative form, disputes can be settled more easily than for strong evaluatives in comparative form? A disagreement is a sequence in which a speaker asserts an unrestricted judgement and the addressee denies it. This, according to the rules provided above, is always an inconsistent discourse in the sense that definition 6.2.1-(5) specified. In that basic sense, faultless disagreements are like any good old disagreement. For strongly evaluatives, the addressee does well in reacting with an outright denial. With a taste judgement, the speaker lays down expectations concerning the addressee's responses to her tests. If the addressee's current state does not match these expectations, it is only reasonable that she signals it. For weakly evaluatives, a disagreement concerning comparative unrestricted judgements can be settled in a straightforward manner because responses to tests have no bearing on the updates, neither the speaker's nor the addressee's. It is difficult to get out from a taste dispute because when G is strongly evaluative as in the case of *tasty*, the addressee accepts or rejects the speaker's claim on the basis of her prior commitments, and on the basis of her $T's$. How can we change someone else's $T's$? It is not just a matter of changing someone's mind, but also of *changing someone's taste*. Given the constraints, we cannot offer proofs to persuade someone to adopt a given judgement if her own response to the $T's$ does not accord with what the update rules require. If our interlocutor does not agree with our T-responses, there is not much we can do to persuade her of the opposite.

It is important to keep in mind that in this system the state that is being updated is the state of the addressee, and that the pronoun 'I' does not refer to this agent, but to the speaker. This is relevant now that we want to check that there is no state supporting both *This is tasty* and *I don't find this tasty*, because strictly speaking that only holds in a *reflective* situation where the speaker and the addressee are the same. Given definition 6.2.17, a necessary condition for a positive update with *Tasty*(a) is that $T_{\alpha_\sigma}(\mathit{Tasty}, \mathit{addressee})(I(a)) = \mathbf{yes}$, whereas according to definition 6.2.18, $\neg$ *Find*(*Tasty*)(i, a) can only be accepted if $T_{\alpha_\sigma}(\mathit{Tasty}, \mathit{speaker})(I(a)) = \mathbf{no}$.

So in our system (a) below is incoherent. But for third-person restricted judgements, or when G is weakly evaluative there are no problems.

(2) a. (!) This is tasty but I don't find it tasty.
b. This is tasty but she doesn't find it tasty.
c. This is tasty but people don't find it tasty.
d. This is heavy but I don't find it heavy.
e. [Looking at fig. 2.1 in chapter 2.] I find the segment in the image above longer than the one in the image below.

When G is weakly evaluative, as in (d)-(e), what we get after we update a discourse with the discourse is a disharmonious state in the sense given in definition 6.2.11, not the absurd state.

Why is it that it some cases, when speaker and addressee are not peers, it seems that there is no contradiction in cases like (a)? Putative counterexamples are scenarios where there is an asymmetry in expertise, as when a teacher addressing her students: *This is difficult but I don't find it difficult.*[47] But in such cases the the state that really counts is the addressee's. Still, the discourse is consistent, but not coherent.

6.2.5 Gradability recast

What picture of gradability comes out of the model we have sketched here? The most salient difference between our approach and most available ones is that we provide update rules instead of adopting a truth-conditional approach. But this is not a difference that cannot be made up for technically, for it is not hard to define a truth-conditional model that is equivalent to a dynamic one. Philosophical reasons why we prefer this modeling strategy were given in section 6.1 above. There are, beyond this first observation, a few of differences and coincidences we would like to underscore.

Our analysis most obviously differs from degree-based semantics, first and foremost because in our model we do not rely on degrees or scales in order to account for the meaning of RGAs. Perhaps a more stunning piece of minimalism our approach leads to is not to rely on standards of comparison, also known as cut-off points. Given how widely accepted this idea is nowadays, our move might seem surprising, for to some it may sound impossible to define the interpretation of gradable adjectives without the aid of a standard of comparison. But our system shows how it is possible to model the interpretation of gradable adjectives without supposing that a line must have been drawn somewhere in advance in order to say whether an adjective applies to an object. This not only for strongly evaluatives like *tasty* or *beautiful* with respect to which drawing a line is hardly reasonable, but also for weakly evaluatives like *heavy* or *long*. We sometimes draw lines but we do not need to do so in order to interpret these adjectives.

[47] Note as well that in order to be felicitous there needs to be some contrastive stress on 'I', which may be interpreted as a switch in focus.

Like delineation-based approaches, we take gradability to be due to context-sensitivity rather than to the existence and binding of degree variables. For us, this context sensitivity reflects not just the conceptual capabilities of an agent who can discriminate kinds of objects. This sensitivity also reflects the role that experience has on how we are able to structure a domain of objects. Moreover, the way partiality and precisification relate in delineation-based approaches is an ideal picture that, for being so ideal, we do not consider as basic. The ideal picture in which the end result of the evaluation process would be a partition of C in a number of equivalence classes, each consisting of objects that are *equally* G is a possibility in our system, but not a cardinal rule. Experience changes and evolves in a less ideal way than what such a rule would predict. Another example of lighter cognitive constraints is that for us the positive form does not require that we are able to find a comparable object such that it is not G. Interpretations are also less determining in that they may work by filling in a comparison base which is more general, less informative than a comparison class.

A final point is a general one. For delineation-based approaches, the positive form is basic and the comparative is derived. For degree-based views, the comparative is basic and the positive is derived. In our view, there is no primacy of either the positive or the comparative form. It is partly for this reason that we are in a more comfortable position to handle the differences in how subjectivity enters into PPTs vs. other RGAs.

6.3 There is something here for everybody

We want to set a tone of optimism with respect to the debate concerning the semantics of PPTs. We hope there is something in our story for everybody — contextualists, relativists, absolutists, and expressivists —, while we also believe that some of the problems discussed in chapter 3 are precluded in our view. We saw in that chapter that theories aligned in these four poles make important contributions to our understanding of PPTs and their subjectivity. We want to mention here a few observations we are able to accommodate in our view, and highlight the main differences that set our approach apart. Obviously, the main difference between our view and the existing ones is that the model is not given as a truth-conditional semantics, but as an update semantics. But the differences we are concerned with here are more interesting than this, again, given that it is not a technical prowess to turn an update system like this one into a truth-conditional one, if one has the time and the interest.

Contextualists highlight the importance of the context of utterance in the interpretation of evaluative judgements. Update semantics incorporates context of utterance in its backbone because of the requirement of coherence: an agent is required to utter only sentences which he accepts herself. When our speaker says that something is tasty or expensive, her own state should support these claims.

So our system ties up context of utterance and context of assessment in the consideration of what speaker and addressee undergo in communication, but this is not to make any of these decisive. Both poles are present in the conditions and the outcome of updating with *any* utterance. The metalinguistic strategy presses the idea that gradable adjectives lead to a change in the common ground but that they can also affect the prevailing interpretation of the adjective to the effect that the acceptable discourses after a claim is made. In a way, our view agrees with the core of this view, for whenever an evaluative judgement is accepted, the set of extensions of a state changes. However, update semantics takes the metalinguistic or interpretational use to be just what any meaningful utterance does, since meaning is conceptualised precisely as context change potential.

Relativists highlight the importance of context of assessment in the interpretation of evaluative judgements. By setting up our model as an update system, the rules focus on what goes on when an addressee is confronted with an evaluative judgement, so context of assessment is incorporated into the very core of the meaning of gradable adjectives. Indeed, a judgement might be acceptable for only some agents, while others might not accept it or even reject it, which reflects the instability of such claims when compared to non-evaluative judgements. However, the (non) acceptability of a judgement depends on the agent's previous judgements, on the outcome of her tests, and on the constraints that structure intentional states. As mentioned before, when speaker and addressee are obviously non-peers, what matters is really the addressee's position. This way of handling this phenomenon puts it closer to similar instances of consistent but incoherent discourse.[48] We also saw in chapter 3 that retraction, that is, rejecting one's past judgements, is argued to be a decisive success of relativists over contextualists. Note that we do not incorporate tense to the system we sketch, so a full account of the issue is not directly available. Still, for us, if one would have to reject one's own evaluative judgement like *This cake is tasty* or *I find this cake tasty*, one's tests must have changed. But a change in one's responses is not a mistake, at least not in the sense that a proof could be offered to one's past self. A test constrains the further judgements we can make, but judgements by themselves cannot change the outcome of our tests.

Perhaps the most extreme view in its simple form, absolutism holds that taste judgements are just like any other judgement, that the claims we make about whether something is tasty or beautiful have the same assertive force as those we make for whether a watch are digital or whether a woman is pregnant. In our model, this insight is incorporated because evaluative judgements make claims to the agreement of others, which partly reflects the Kantian basis of our philosophical analysis. What is peculiar to some evaluative judgements is that

[48] One can treat in a similar way the case of counterfactuals where the addressee's state is the one that is solely at stake. Cf., fn. 8 above. In this sense, our model dispels the apparent special status of exocentricity as a distinctive feature of PPTs.

they are not made on the basis of evidence which can resolve a disagreement. An agent who does not know Alf or Bea may accept a judgement like *Alf is tall* or *Alf is taller than Bea* because if she were to go and check Alf's and Bea's heights, the results she would obtain would be in principle the same as the speaker's own results. But an agent who is told that a given cake is tasty has to check for herself, the test depends on her appraisal and the way this may affect her ulterior linguistic and non-linguistic behaviour which would render the outcome of the test visible for others. This test is not a conventional method, even if each of us has to do the same to see whether a cake is tasty, namely, try it and savour it. So an unrestricted evaluative judgement like *This cake is tasty* demands the agreement of others, but in absence of a publicly available means to agree, such a judgement relies on the agent's own responses *and* on the expectations she has about the responses of others.

Of course, the nuanced forms of absolutism we discussed in chapter 3 make subtler claims, for they would say that PPTs serve to make evaluations about the opinion of people in general, based on first-person experience. This statement may sound exactly like how our model deals with strongly evaluative adjectives like PPTs, given that we also impose a requirement of experience on evaluative judgements in the constraints we give on intentional states. But the crucial difference is that our view deals with the normative dimension of unrestricted judgements because evaluations do not describe what people actually think but rather lay down expectations about what people should find. Our conviction regarding a taste judgement may be weakened when others turn out not to agree with it but the judgement is not thereby proved false, as nuanced absolutists would predict.

This model of gradable adjectives will be called by expressivist by some. We already argued in subsection 6.1.2 against the idea that update semantics, as it is, amounts to an expressivist undertaking. Unlike the regular expressivist, we do not assume that there is a cleavage between ordinary descriptive language and evaluative judgements. Our system handles within one framework judgements like *This is a cake* and like *This cake is tasty*. The choice of support preservation instead of truth preservation as the key semantic notion does not mean we think that what the actual world is like is irrelevant for our evaluative judgements, or that we think that evaluative judgements express non-cognitive states. If one still insists in calling our stance an expressivist view, one should note that our model does not suffer from the Frege-Geach problem. Despite the fact that on our account statements containing gradable adjectives do not express propositions in the ordinary sense of the word because they do not describe the world, we have seen in this chapter that there is no problem to give meaning to negation, and in appendix A the reader can find rules for conjunction and disjunction of this kind of statements. Certainly, to take this point, the reader should accept that it is wrong to think that negation, conjunction, disjunction, etc. are by definition truth functions. At best they reduce to truth functions when designing formal models

bearing exclusively on non-evaluative judgements. But all you need to make sense of these logical connectives is an underlying Boolean Algebra (or something akin to that). And sometimes there is no such thing,[49] but as appendix A shows for languages with gradable adjectives there is no such problem. So one should see that although dynamic semantics and, in particular, update semantics can be used by the expressivist to account for what she thinks is a distinct kind of natural language expressions with a distinct kind of meaning,[50] one can also see that update semantics provides a framework in which the dispute between the truth-conditional and the expressivist semanticist does not arise.

Kosher expressivism sees the expressive-affective dimension as a pragmatic layer coming upon the semantic import of taste judgements. Semantically, a claim like *This cake is tasty* amounts to *This cake is tasty to Alf* when Alf is the speaker, or *This cake is tasty to such-and-such people* when it is used to report the outcome of a survey. Pragmatically, it affects the addressee because such a claim invites the intended audience to adopt one's own attitude. This subject-transcendent dimension is present in our system in a stronger guise. For us, the subject-transcendent dimension is present in evaluative judgements beyond the specific case of taste, it is part of their semantics, and it is normative and not a means of persuasion.

We hope to have shown why the system we have sketched collects some of the insights of the different views on PPTs we have reviewed. It is time to conclude this chapter.

6.4 Conclusion and challenges ahead

One would perhaps expect to find here a general discussion on metasemantics, on what notion of meaning we get from update semantics, and why it leads to less complications than the one inherited from truth-conditional semantics when dealing with the case of PPTs among RGAs. But we trust that the core of this discussion is present already in this chapter, and we feel that we would be repeating ourselves at this point. What we want to do here is include a list of issues that our simple sketch does has left aside. This way, we can see what the next steps should be.

This list of loose ends starts with the most obvious urgent pending task. We should get to spell how how the system could deal with absolute gradable adjectives and, for contrast, cases of privative adjectives, and non-gradable adjectives. The sort of partial approach we have adopted here might make it difficult to see the solution for absolute adjectives coming in delineation-based theories, i.e.,

[49] That is why you cannot have the disjunction or the negation of an imperative for example. You can have *(walk or talk)!* but you cannot have *(walk! or talk!)*. You can have *don't walk!* but you cannot have *not(walk!)*.

[50] This is the strategy in, e.g., Willer [2014].

as a comparison with respect to the whole domain. In our picture we have not made a distinction between stage- and individual-level. The relative vs. absolute typology has been accounted for exploiting this distinction.[51] This would be a possible route for us. Perhaps a more straightforward treatment could be achieved by thinking of absolute gradable adjectives being related to rule-based classification[52] which could be implemented via constraints (but these would be of lexical nature). We have also left out matters concerning adjectival polarity, interadjective comparisons, and multidimensionality. The latter is quite urgent given that aesthetic adjectives have been recently argued to be multidimensional.[53]

Superlatives have been left our from the start, in chapter 2. The case of extreme adjectives like *delicious, excruciating, huge* which are closely related to the ones we have examined, and whose meaning has been thought to be superlative, require that this part of the story is effectively in place. While this may seem like something that one can simply derive once one has an account of the comparative, when we think of strongly evaluatives and the role tests play in establishing the comparative, we encounter a possible challenge. If I say *This cake is the tastiest one in the shop*, then I might have to compare the result of one the present test with a host of other tests. In this case (and maybe even beyond this case), an issue we raised in chapter 3: can we compare experiences beyond the immediate? On what plane can we put them? The fact that experience comes with external manifestations, i.e., with linguistic and non-linguistic expressions which are associated with them, may play a key role as an external anchor. But of course, the comparison cannot reduce to these external manifestations, for we do not need to recall and contrast our sayings and gestures when we make comparative or superlative judgements.

Even though we do not provide rules for intensifying adverbs like *very*, it is not hard to imagine how this would look like. Intuitively *very tall* means *tall among the tall ones*.[54] To be very tall in comparison class C is the same as to be tall in the comparison class given by the set of objects that are tall in C.[55] The case of so-called evaluative adverbs like *remarkably, fortunately, oddly* also seems to be a nice one to think of, partly given that linguists have suggested that one should handle them in a semantic dimension different from ordinary truth-conditional content. It is easy to imagine that we could get a story about the role tests play here, as a nice mirror case of how, e.g., *presumably* works for epistemic states. Matters are, however, more subtle with adverbs like *quite, rather* and with *almost, slightly*. Intuitively, what that *rather tasty* mean?[56] Does it mean

[51] In Toledo and Sassoon [2011].

[52] Taking insights from McNally [2011].

[53] Concretely, in McNally and Stojanovic [2014], the reason being that "aesthetic judgments are typically based on the application of a multiplicity of criteria at the same time." (p. 11)

[54] This idea is already suggested by Wheeler [1972].

[55] Here we follow the claim made by Klein [1980].

[56] Not many occurrences are found in a quick search in the BNC, but there are some.

something like *tasty, but not as tasty as it could be*? If this involves comparing a present experience, not with a past one, but with an ideal one, how could we handle this?

Concerning attitude verbs, one would have to carefully check crosslinguistic issues concerning how the English *find* relates to various candidate equivalent verbs in other languages. The French *trouver*[57] is more lenient in how it allows for *that*-phrases than the English *find*. The German *finden*[58] can embed definitional sentences (Ich finde, das ist ein Stuhl = I consider this a chair) and deontic statements (Ich finde, indirekte Steuern sollen abgeschafft werden = I think indirect taxes should be abolished). The Dutch *vinden* can easily take complete clauses as its complement and still be a way to express one's experience, and it can be used to express an assessment concerning an agent different from the matrix subject (Hans vindt Sint, the movie, leuk voor Paul = Hans finds Sint, the movie, fun for Paul).[59] Moreover, one would have to consider propositional attitudes like *know, believe, think*, and to properly account for the difference, or lack thereof, between saying *I know this is tasty* and *This is tasty*.[60] A last idea here concerns the remark we made in chapter 2, fn. 93 about how *find* relates to perception verbs such as *see* or *hear* which can embed small clauses as well as that-clauses. But while *John heard Mary loose her voice* does not imply *John heard that Mary lost her voice*, nor does the latter imply the first, in the case of *find* the that-clause seems to imply the small clause.

As we announced it early on in this chapter, our domain of objects only comprised individual items, not mass nouns, which introduces complications in how to check whether the *Experience* constraint is met for strongly evaluatives. And as declared in fn. 39 when presenting *Universality*, the full Kantian claim of universality is not dealt with in the system as it stands now. For this, with *This is tasty*, the addressee is expected to find this tasty, *and* she should expect others to find this tasty, but this latter constraint is not included in the present setting to keep matters simple and focused. We have also left tense out of consideration, for simplicity, but this would have to be taken care of to see exactly how people change their minds in time, and to understand the contrast between *This was tasty, now it's not* and *I found this tasty, now I don't*.

Notorious absentees in our investigation are *good, better; bad, worse*. Our excuse for leaving them aside in chapter 2 — mainly to avoid entering into the complex and vast debate in metaethics — could surely be judged to be a weak one. A similar disappointment could arise when the reader finds that we left colour adjectives aside. Again, our justification was mainly related to space and time, although we did point out that in certain respects (e.g., in how they lend

[57] See esp. Bouchard [2012].

[58] Here we are following Umbach [2014].

[59] As Paenen [2011] indicates.

[60] This relates to how there is not much difference between *I know this is a hand* and *This is hand*, something Wittgenstein examines critically in Wittgenstein [1969].

themselves to testimony) colour words are not to be assimilated to PPTs. We also should pay more attention to emotion (*happy vs. sad*) and existential adjectives (*depressed, anxious*) which we included among PPTs in chapter 2, but about which we did not say much. We noted at some point, in a footnote, that *happy* come in complex verbal constructions like *happy to meet you*, which so far have not been discussed in the literature on PPTs.

A more ambitious goal but that that lies beyond what a formal model of the sort we have given can provide is to bring out subtle differences among adjectives like *tasty, appetising, flavourful, good-tasting*, etc.[61] More would have to be said as well about heterogeneous adjectives like *skilful* which cannot be easily classified as weakly vs. strongly evaluative in our account. Of course, whether and how one should seek to integrate formal semantics and lexical semantics are challenging issues going beyond our present concerns, but they are certainly related to our research and should not be ignored.

A last remark is the following. To say whether an object d is in the interpretation of G, the judgement is relative to objects in its kind N. Even though we introduce comparison bases N as a sort of formal articulation of the kind of transcendental order in nature that we need to assume in order for cognition and science to be possible, in the end we are saying that the interpretation of G in positive form relies on a comparison. It does not rely on an explicit application of the comparative *G-er*, so it is true that in our system the positive and the comparative are independent. But still, the positive involves judging the object relative to other, similar objects. So we bring to ourselves the issue we raised for delineation based approaches at the end of subsection 3.1.3 in in chapter 3: the comparability of objects presupposes that we already have a way to sort them out. How do we know which are the objects in N, or which are the $N \in c(G)$ before independently of knowing the meaning of G?

[61] Considerations on the differences and similarities between *tasty* and *tastes good* can be found in Pearson [2013b], ch. 5, where she suggests that individual-level PPTs and stage-level PPTs should lead to different semantics for each class.

Chapter 7

Conclusions and perspectives

If we have succeeded in our purpose, then the reader will agree that adjectives like *tasty* or *long* are subjective because their meaning is inextricably tied to how people can act on the object under assessment. How we are drawn to act in a situation is something we live by, something we experience, that we share, that we sometimes refrain from, and that we signal in language. Adjectives like *tasty* or *long* are not subjective in the same way because we have developed conventionalised methods by which we can check, for example, length. How people can act on the object under assessment is thus more predictable, and in that sense we say that *long* is weakly evaluative. Meanwhile, *tasty* is strongly evaluative and this is what leads us to disputes which are hard to settle. We take how we act as exemplary and we expect others to agree, where such expectations, grounded on our shared intercorporality, are part and parcel of what we mean. Adjectives like *tasty* signal our embodied coping, a coping that takes place at a level where subject-other and subject-object are not yet neatly distinguished. What we could call now the paradox of taste, i.e., the fact that taste judgements are subjective but, at the same time, they are comprehensible for others and they are normative, is not at all mysterious when looked at through the lens of embodiment. Natural language arises in a human setting. Human beings are fleshed minds, minded bodies. This is often not visible when one is doing semantics. The case of subjectivity in the adjectival domain makes it a pressing issue. It prompts us to rethink linguistic meaning, the object of study of semantics.

In chapter 2, we tried to lay down the phenomena to be accounted for. We made an effort to keep matters as descriptive as possible there, in contrast to how in recent years these phenomena have been hogged by the analyses that semanticists defend.

We presented in chapter 3 two debates in semantics that cross our research question. The first addresses the question concerning how one should formalise the meaning of gradable adjectives. The second examines the issue of the subjectivity of adjectives like *tasty*, and tries to find a way to insert the subject back

into a semantic framework that excluded it, by design. The theories we reviewed yield observations one should account for. However, the discussion has mainly focused on what mathematical model one should devise, what linguistic tools one should employ, what "-ism" in semantics one should support. We tried to step back from this discussion for we think it takes us into a *cul-de-sac* in which the picture of subjectivity becomes a strange one. The battle about where to place a judge assumes an individualistic view on subjectivity, and the subject we end up with is objectivised. With some distance now, we can say that the notion of subjectivity assumed in the debate is a strongly Cartesian one. Intuitive as this notion may seem, it is a rather unpopular one in many philosophical circles. We have taken a critical stance towards it, and we have tried to show how a non-Cartesian view can be adopted while one keeps doing semantics.

We saw in chapter 4 that, according to Kant, the same ability, reflective judgement, allows us to claim the agreement of others when we say something like *This painting is beautiful* and *This book has 262 pages*. We went beyond Kant in claiming that this same ability is behind the normativity of judgements like *This cake is tasty* and *This is a long book*. Reflective judgement allows us to take our affective responsiveness beyond ourselves. We can produce rational justifications for our judgements *sometimes*, but not all the time. Taste judgements claim the agreement of others, but they do so not based on concepts. Taste judgements demand that others should respond as I do, and I respond as I do because this is how we should respond. This sounds like a tongue-twister, but it sums up the condition of possibility of all cognition, or at least that is how we could put it if we go very far in our reading of Kant (but we do not need to go that far).

We saw as well in chapter 4 that first-person ascriptions of psychological states were a topic of interest for Wittgenstein, and we found a valuable insight in his own take on so-called avowals. Claims like *I am in pain*, similar to *I find this cake tasty*, are related to how people act, and this relation is crucial if one wants to get out of the Cartesian trap. Wittgenstein defended an anti-Cartesian view of subjectivity, one that some have called expressivist or even behaviourist, but our interpretation of his work rejects these labels because they miss more than they capture. There is no mind without characteristic expressions, i.e., gestures, facial expressions, and patterns of behaviour by which we make sense of our fellow human being's ongoings. But the mind, the subject, and meaning are not reducible to behaviour. Inner and outer are elements in a dialectic that, if broken, leads to a misconception of both the subject and the object. Avowals are a variety of certainties, of claims that we make but that we seem to be unable to prove to others if we are asked to do so. Certainties are examples of claims that we do not make on the basis of evidence but which play a most crucial role in shaping the knowledge space and the logical space. Taste judgements share a number of features with certainties. Like certainties, taste judgements play a regulative role in shaping our embedding in a social setting. There is no subject without others.

We think phenomenology from the Merleau-Pontyian stream gives us Ari-

adne's thread to walk out of the Cartesian maze. This is how we started chapter 5. A human being can be seen as having an objective body but also as having a lived body, her flesh. We are *in* the world *through* our bodies. This is how we cognise, and this is the locus of linguistic meaning when we talk about how we affectively respond to our surroundings. One can try and cut this seemingly intractable mess out of semantics, thinking that it does not have enough structure to be part of the stable core of linguistic meaning. But if we conceptualise intentionality via affordances, we can find some structure, enough to let us see how different people can converge in their linguistic signaling. Affordances are ways in which we are drawn to respond to aspects of the environment as complex intentional agents with abilities which are, by and large, shared with others. When we think of intentional agents this way, the subject is not objectivised. When we look at evaluative judgements as a means through which we communicate our responsiveness to relevant affordances, we see how agents can achieve intersubjective agreement. We are out of the maze.

Can this view of linguistic meaning be modeled formally? Yes, it can. In chapter 6, we sketched an update system giving basic rules for the interpretation of evaluative judgements of various sorts. Intentionality can be reconceived as a broader phenomenon that goes beyond truth-conditional content. But going beyond is not an attempt to install a parallel sort of meaning running next to the one semanticists have tamed. Broader means more encompassing. Embodied intentionality underlies ordinary judgements and evaluative judgements, it accommodates the difference in subjectivity between claims like *This cake is tasty* and *This is a long film*, and it makes it easy to see what we mean by *She finds this cake tasty* or *I find this a long book*. (Do you?) If linguistic meaning is conceived in terms of how an intentional state changes when we come to accept a statement, and if intentional states are states of agents who are affectively rich and alive, we arrived safely to our destination. Natural language arises in a human setting. Human beings are fleshed minds, minded bodies. Embodied intentionality leads to an account of meaning that frees us from the paradox of taste. We have reshaped the object of study of semantics to get a better understanding of the sense in which *tasty* and other gradable adjectives can be said to be subjective. This is probably not the only way out of the labyrinth but it is the one we found. There is no knock-down argument here for why the reader should take this way, but we hope to have shown that it is an illuminating one.

Every piece of research has a scope and therefore limitations. Perhaps the most salient one in this enquiry is a certain lack in linguistic depth, in particular (but not only) regarding syntax. We have hand-waved for instance differences in attributive and predicative form, admissibility of prepositional phrases, control structures, etc., leaving lots of open questions and maybe creating some disappointment. We have also been able to do just too little empirical research into actual dialogue where adjectives and sentences of the sort we have studied feature in actual conversation. We believe that the whole discussion concerning subjec-

tivity in the adjectival domain is in urgent need for a systematic empirical study. Most of the research produced in the past years, including the research reported here, turns around theoretical problems and hypothetical dialogues. Linguistics gains much from corpus-based research into naturally occurring language. The kind of problem we have investigated calls for empirical research into actual dialogue. To get a better understanding of what is at stake when we exchange evaluative judgements, we need to leave the armchair and get our hands dirty. Our own research belongs to the margins of linguistics, it more clearly belongs to philosophy of language. But philosophy of language too would very much benefit from a more empirically informed discussion. When the debate concerns mainly the "-ism" one should adopt, one loses sight of the very issue at hand, and while this might not be regrettable if one believes that philosophy of language is a purely speculative affair, this is not how we see the discipline. Philosophy of language should care (more) about language.

One could also object to this investigation that it is "too continental". How can we ask the semanticist of a more or less formal appetite to partake in phenomenology? Can one cross that bridge safely? More importantly, is there any good reason to cross that bridge? We hope to have shown that the crossing can be fruitful and enlightening, and that one should not see it as a betrayal of the goal of semantics. We want to understand linguistic meaning. Phenomenology investigates the conditions of possibility of intentionality. Seeing semantics and phenomenology as opposed camps can only reflect a prior decision that no bridge shall be laid. The idea that analytic and continental philosophy should be kept separate might be useful in some, but certainly not in all contexts. Our research exercise exemplifies a line of thinking that calls this idea into question. It also shows that one can be critical of the foundations of formal disciplines, in particular of semantics, and at the same time keep a constructive attitude and an optimistic tone about what a formal discipline like semantics can yield.

Finally, what seems to be the central question: can there be subjective meaning? The answer is "No" if one maintains an individualistic view on subjectivity, for in that case one fails to explain how intersubjective understanding is possible. The answer is also "No" if one holds on to a view according to which meaning only has to do with what is or could be the case, because the subject is not a fact of the world, or at least it should not be reduced to that. The answer is "Yes" if one is careful enough in seeing that it is not meaning that is subjective. Subjects speak languages which have meaningful expressions. Subjects qua embodied agents can disclose to each other their inner lives because inner and outer are two sides of a coin.

Appendix A

Logical connectives and first-order quantifiers

We introduce rules for disjunction, conjunction, and for the universal quantifier. We mention the case of bare plurals in view of the challenges that speakers face when making universal judgements with strongly evaluative adjectives.

A disjunction introduces alternatives. To incorporate these we have to lift our notion of intentional state. It can no longer be represented by one situation and the expectations our agents have about this situation. It is to be a *set* of situations and the expectations the agents have about each of these.

A.0.1. Definition. [Lifted intentional state] Fix A, D and an interpretation I that assigns to every individual constant c, and noun N, an element $I(a) \in D$ and a total function $I(N)$ from D into $\{\mathbf{yes}, \mathbf{no}\}$. A state S based on A, D and I is a set of basic states with the following properties

1. For every $\sigma = \langle \alpha_\sigma, \epsilon_\sigma, \rangle$ and $\tau = \langle \alpha_\tau, \epsilon_\tau \rangle$, it holds that if c is an individual constant then $I_{\alpha_\sigma}(c) = I_{\epsilon_\sigma}(c) = I_{\alpha_\tau}(c) = I_{\epsilon_\tau}(c) = I(c)$.

2. For every $\sigma = \langle \alpha_\sigma, \epsilon_\sigma, \rangle$ and $\tau = \langle \alpha_\tau, \epsilon_\tau \rangle$, it holds that if N is a noun, then $I_{\alpha_\sigma}(N) = I_{\epsilon_\sigma}(N) = I_{\alpha_\tau}(N) = I_{\epsilon_\tau}(N) = I(N)$.

3. $\emptyset$ is the absurd state.

4. the minimal state is the state $\{\mu\}$, where μ is the minimal basic state.

In the above, we restrict ourselves to cases where the addressee is well aware of:

1. the set of objects (s)he is talking about — that is why we have the same domain D in all basic states in S;

2. the names of these objects, and the kind of object they are. That is why the interpretation of the names and the nouns are constant throughout the state.

This way, we can concentrate on the interpretation of the adjectives. The only thing our agents have to do is to evaluate the objects at hand.

We do not have to start all over again. With a reference to definition 6.2.16, we can define:

$$S[\![G(a), N, C]\!]^+ = \{\sigma' \mid \sigma' = \sigma[\![G(a), N, C]\!]^+ \text{ for some } \sigma \in S\}$$

Similarly for the other sentence forms discussed in the previous section (see rules 6.2.17, and 6.2.18).

A.0.2. Definition. [Conjunction and disjunction]

$$\begin{aligned}
S[\![\varphi \wedge \psi, N, C]\!]^+ &= \{\sigma' \mid \sigma' = \sigma[\![\varphi, N, C]\!]^+[\![\psi, N, C]\!]^+ \text{ for some } \sigma \in S\} \\
S[\![\varphi \wedge \psi, N, C]\!]^- &= S[\![\varphi, N, C]\!]^- \cup S[\![\psi, N, C]\!]^- \\
S[\![\varphi \vee \psi, N, C]\!]^+ &= S[\![\varphi, N, C]\!]^+ \cup S[\![\psi, N, C]\!]^+ \\
S[\![\varphi \vee \psi, N, C]\!]^- &= \{\sigma' \mid \sigma' = \sigma[\![\varphi, N, C]\!]^-[\![\psi, N, C]\!]^- \text{ for some } \sigma \in S\}
\end{aligned}$$

Let us now look at the update rules for *All M are G*, in a context determined by the noun N and the comparison class $C \subseteq I(N)$.

For the positive update, what you do here is extend $I_{\alpha_\sigma}(G, N, C)$ for each $\sigma \in S$ in such a manner that it assigns **yes** to each $d \in C$ for which $I(M)(d) =$ **yes**, and then adapt the the result to the constraints.

To describe the negative update it is convenient to introduce an abbreviation:

A.0.3. Definition. Let I, I' be two interpretations. $I' =_G I$ iff for all adjectives X and comparatives $X\text{-}er$ such that $X \neq G$, $I'(X, N, C) = I(X, N, C)$ and $I'(X\text{-}er, N) = I(X\text{-}er, N)$.

A.0.4. Definition. [Update Rules for *All M are G* (for G weakly evaluative)]

1. $\sigma' \in S[\![\textit{all } M \textit{ are } G, N, C]\!]^+$ iff there is some $\sigma \in S$ such that
   (a) $I_{\alpha_{\sigma'}}$ is the smallest extension J of I_{α_σ} such that
      i. $J(G, N, C)(d) =$ **yes** for all $d \in C$ such that $I(M)(d) =$ **yes**, and
      ii. the constraints are satisfied.
   (b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$.
   (c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that
      i. $J(G, N, C')(d) =$ **yes**/**no** for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) =$ **yes**/**no**;
      ii. $J(G\text{-}er, N)(d, d') =$ **yes**/**no** for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)(d, d')$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N)(d, d') =$ **yes**/**no**;
      iii. the constraints are satisfied.

(d) $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$.

2. $\sigma' \in S[\![\textit{all } M \textit{ are } G, N, C]\!]^-$ iff there is some $\sigma \in S$ such that

   (a) With respect to $I_{\alpha_{\sigma'}}$

      i. $I_{\alpha_{\sigma'}}$ extends I_{α_σ};

      ii. $I_{\alpha_{\sigma'}} =_G I_{\alpha_\sigma}$;

      iii. for some $d \in C$ such that $I(M)(d) = \mathbf{yes}$, $I_{\alpha_{\sigma'}}(G, N, C)(d) = \mathbf{no}$;

      iv. the constraints are satisfied.

   (b) $T_{\alpha_{\sigma'}} = T_{\alpha_\sigma}$

   (c) $I_{\epsilon_{\sigma'}}$ is the smallest extension J of $I_{\alpha_{\sigma'}}$ such that

      i. $J(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$ for all d and C' such that $I_{\alpha_{\sigma'}}(G, N, C')(d)$ is undefined and $I_{\epsilon_\sigma}(G, N, C')(d) = \mathbf{yes}/\mathbf{no}$;

      ii. $J(G\text{-}er, N)(d, d') = \mathbf{yes}/\mathbf{no}$ for all d, d' such that $I_{\alpha_{\sigma'}}(G\text{-}er, N)(d, d')$ is undefined and $I_{\epsilon_\sigma}(G\text{-}er, N)(d, d') = \mathbf{yes}/\mathbf{no}$;

      iii. the constraints are satisfied.

   (d) $T_{\epsilon_{\sigma'}} = T_{\epsilon_\sigma}$.

The above is not the only possible interpretation of sentences of the form *All M are G*. They are ambiguous. We can look at all M in the context N, C, as described in the definition above or alternatively, at each M in its default context. This allows us to deal with cases like *Everybody in this family is tall* where each member of the family is considered regarding their role and age. We want to suggest that this is something introduced by the collective noun *family*, where members of the collection play by definition different roles and normally belong to clearly distinct generations. But this does not arise when the collective noun does not come with such a variegated structure in the collection it introduces, as for instance the case of *group* or *cohort*.

It is left to the reader to spell out the update rule for *All M are G* with G strongly evaluative. (One can adapt definition A.0.4 in the same manner as we adapted definition 6.2.16 for weakly evaluative G's here above).

People do not often assert a sentence of the form *All M are G* with G a strongly evaluative adjective. This is partly because they tend to be false — not all pies are tasty, think of the pies that went wrong — and partly because in most cases it is difficult if not impossible to satisfy the experience constraint. You cannot sincerely assert *All paintings by Rembrandt are beautiful* if you have not seen all of them.

This is one of the reasons why it is interesting in this context to look at sentences starting with a bare plural rather than a universal quantifier — *Pies are tasty*, instead of *All Pies are tasty*. Sentences of this form often express defaults, rules with exceptions. When you accept *Pies are tasty*, you will *expect*

every pie to be tasty. This expectation will not always turn out to be correct, but that does not necessarily mean that you will change your mind. You may consider this bad experience an exception that proves the rule and expect the next pie to be tasty again. Hence, basically what you have to do when you learn that *M's are G* is (a) change $I_{\epsilon_\sigma}(G, N, C)$ for each $\sigma \in S$ in such a manner that it assigns **yes** to each $d \in C$ for which $I(M)(d) = \textbf{yes}$ and $I_{\alpha_\sigma}(G, N, C)$ is undefined; (b) adapt the result to the basic constraints; and (c) for strong evaluatives see to it that *Experience* and *Universality* hold at least at the level of expectations. All in all this is quite a complex operation, and we leave the details to another occasion. We just wanted to indicate that in principle the framework is rich enough to deal with generic statements, too.

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Samenvatting

Affect en betekenis

Subjectiviteit en evaluativiteit bij gradeerbaare bijvoeglijke naamwoorden

In dit proefschrift onderzoek ik de betekenis van gradeerbare bijvoeglijke naamwoorden, zoals *lekker* en *dik*, en de betekenis van de zinnen die we met deze woorden kunnen maken. In het Engels kunnen we bijvoorbeeld uitingen doen als *Deze cake is lekker* en *Dit is een dik boek*. Met dit soort uitingen kunnen we terecht komen in moeilijke discussies omdat *lekker* en *dik* in zeker zin subjectieve inschattingen zijn. Het doel van dit onderzoek is het verkrijgen van een duidelijker beeld van in welke zin we kunnen stellen dat de betekenis van gradeerbaare bijvoeglijke naamwoorden als deze subjectief zijn.

Formele semantici en taalfilosofen hebben de laatste tijd veel aandacht besteed aan de subjectiviteit van bijvoeglijke naamwoorden als *lekker*, omdat een intuïtieve analyse over wat smaak inhoudt de gangbare waarheidsconditionele aanpak van de definitie van betekenis trotseert. Om uiteindelijk tot een beter begrip te komen van hoe subjectiviteit in de betekenis van gradeerbare bijvoeglijke naamwoorden komt, beargumenteer ik dat ons begrip van betekenis meer omvattend moet worden dan de gangbare waarheidsconditionele definitie. We hebben een breder begrip van intentionaliteit nodig. Bijvoeglijke naamwoorden als *lekker* en *dik* zijn subjectief omdat ze aangeven hoe mensen zich kunnen gedragen, maar ook omdat ze aangeven hoe zij verwachten dat anderen zich zouden moeten gedragen. De subjectiviteit van smaak en andere ervaringen die we met behulp van taal uiten, vloeit voort uit de aanname dat 'ervaren' iets is dat alleen belichaamde agents kunnen. We beschrijven hier het beeld van belichaamde intentionaliteit waarbij deze niet alleen de waarheidsconditionele inhoud omvat, maar die ook overstijgt. De aboutness van evaluatieve oordelen als *Deze cake is lekker* of *Dit is een dik boek* beslaat een ineengevlochten web van informatie en affect. Om beter te kunnen specificeren hoe de verwachte gedragspatronen zich verhouden als constituenten van betekenis, beroepen we ons op het begrip *affordance*. Affordances zijn handelingsmogelijkheden die de omgeving biedt aan vaardige agenten wiens

vaardigheden grotendeels gedeeld zijn met andere mensen. Evaluatieve oordelen, in ons weergave, kondigen het reageren op ons relevante affordances aan.

Dit klinkt dit als een vreemde manier om het taalwetenschappelijke begrip betekenis te omschrijven, zeker als men zich richt op een formele weergave ervan. Kunnen we wel een wiskundige aapak bereiken? We beschrijven een update systeem, een gesimplificeerd model die de mechanica van belichaamde intentionaliteit laat zien op de manier waarop agenten zinnen interpreteren zoals die hierboven en sommige andere.

Het zal de lezer niet verbazen dat hoofdstuk 1 zich wijdt aan een algemene introductie. In de samenvatting van dit proefschrift gaan we daarom verder met hoofdstuk 2.

Als we bijvoeglijke naamwoorden bekijken als een woordsoort, dan kunnen we de gradeerbare bijvoeglijke naamwoorden als een aparte soort beschouwen. Bijvoorbeeld, ze kunnen volgens de trappen van vergelijking verbogen worden (je kunt zeggen *Deze cake is lekkerder dan die taart*, of *Dit book is dikker dan dat woordenboek*), je kunt een uiting aanpassen met een bijwoord als *erg* (denk bijvoorbeeld aan *Deze cake is erg lekker*, of *Dit is een erg dik boek*), en ze hebben een voor de hand liggend antoniem (bijvoorbeeld *Deze cake is vies* of *Dit is een dun boek*). Hetzelfde geldt voor bijvoeglijke naamwoorden als *vol/leeg* en *open/dicht*, maar *lekker* en *dik* zijn evaluatief. Want hoewel we een uitroep als *Wat een dik boek!* of *Wat een lekkere cake* heel normaal vinden, klinkt *Wat een dichte deur!* ons vreemd in de oren. We bespreken hier dan ook alleen die gradeerbare bijvoeglijke naamwoorden die evaluatief zijn. Deze kunnen we vervolgens nader bekijken om te zien of ze allemaal subjectief zijn op de manier die we boven beschrijven. Zijn ze op dezelfde manier subjectief? In hoofdstuk 2 beschouwen we de beschrijving van algemene eigenschappen van gradeerbare bijvoeglijke naamwoorden, plaatsen we *lekker* en *dik* als naaste familieleden in de stamboom van bijvoeglijke naamwoorden, en laten we enkele taalwetenschappelijke eigenschappen zien die aantonen dat *lekker* en *dik* niet op dezelfde wijze subjectief zijn. In bovenstaande paragrafen stelden we dat sommige bijvoeglijke naamwoorden discussies aanwakkeren die moeilijk de beslechten zijn. Opmerkelijk is dat we ook kunnen zeggen: *Ik vind deze cake lekker* of *Bea vindt dit boek dik*. Maar als het er echter over gaat of "Ulysses" van Joyce dikker is dan "Silk" van Baricco, dan is men snel uitgekibbeld. Als we dan vervolgens de twee uitingen *Dit is lekker, maar ik vind het niet lekker* en *Dit is zwaar, maar ik vind het niet zwaar* bekijken, dan wordt duidelijk dat de eerste zin, in tegenstelling tot de tweede, vreemd overkomt. Op de vraag waarmee we dit onderzoek ingingen, namelijk in welke zin *lekker* en *dik* subjectief zijn, zullen we de aanvulling moeten maken dat deze twee niet op precies dezelfde manier subjectief zijn.

In hoofdstuk 3 zullen we een beknopt overzicht geven van twee discussies binnen de semantiek die met mijn onderzoeksvraag overlappen. Aan de ene kant hebben onderzoekers op verschillende manieren gradeerbaarheid geanalyseerd en geformaliseerd. Aan de andere kant is de discussie over de semantiek van bi-

jvoeglijke naamwoorden zoals *lekker* de laatste tijd uitgegroeid tot een slagveld over verschillende standpunten over de taalkundige definities van betekenis. De strijders binnen deze twee orthogonale debatten nemen een waarheidsconditioneel standpunt in. Dit geldt niet voor de expressivisten, die hebben voorgesteld om de waarheidsconditionele semantiek te vullen met een niet-cognitieve laag van betekenis om de subjectiviteit te kunnen verwerken. We beoordelen deze standpunten op basis van hun voor- en nadelen, maar gezien hun gemeenschappelijke basis kunnen we ook twee overeenkomende elementen onderscheiden. Wat ze alle gemeen hebben, is het uitgangspunt dat subjectiviteit afhankelijk is van de beoordelaar, en tevens maken ze subjectiviteit objectief.

De meeste gangbare theorieën passen een strategie toe waarin ze een beoordelaar toevoegen aan het semantische plaatje, meestal maar niet altijd de spreker zelf, die beoordeelt wat de waarheid, inhoud, bewijs, toegang, of houding is met betrekking tot een uiting als *Deze cake is lekker*. Wanneer subjectiviteit beschouwd wordt als afhankelijk van de beoordelaar, dan wordt een subject voorwaardelijk beschouwd als gereduceerd tot het individu. Maar als we het correct toepassen van een term conceptualiseren tot iets dat afhankelijk is van individuele agenten, dan hebben we geen gemeenschappelijk en intersubjectieve voorwaarde meer waarmee we correcte van incorrecte toepassingen kunnen onderscheiden.

Het gangbare standpunt ten opzichte van gradeerbaarheid, waarbij subjectiviteit ook als afhankelijk van de beoordelaar wordt gezien, beschouwt het subject als degene die beoordeelt welke vergelijkingsstandaard de overhand krijgt binnen een context, of als degene die besluit welke objecten vergeleken worden bijvoorbeeld bij het beoordelen of een bepaalde cake lekker is of niet. Maar in dit geval wordt de ervaring van de agent met betrekking tot een bepaald object niet van belang. Immers, je bepaalt of deze cake lekker is door te kijken naar de verhouding van deze cake tot vergelijkbare objecten. De expressivist mag dan misschien aan dit nadeel kunnen ontsnappen, maar als men de niet-cognitieve laag van betekenis van de beschrijvende betekenis loskoppelt, dan moet je immers kunnen verklaren hoe de verschillende soorten betekenis tot elkaar in verhouding staan. De moraal van dit kritische overzicht is dat om enige vooruitgang maken, moeten we een niet objectiverend en niet individualistisch notie van subjectiviteit ontwikkelen.

De eerste stap in ons positieve relaas start in hoofdstuk 4 met een korte uitwijding over de epistemologie van smaak. Een discussie over smaak waarin Alf zegt: *Deze cake is lekker*, maar Bea reageert met het tegenovergestelde *Nee, helemaal niet*, laat ons zien dat ondanks de subjectiviteit van smaak het oordeel van een spreker niet alleen betrekking heeft op de spreker zelf. De toegesprokene is betrokken, daarom protesteert ze. Een uitstrekking van Kants notie van reflecterende oordeel kan smaakoordelen, andere evaluatieve oordelen, en non-evaluatieve oordelen overbruggen. Echter, *Deze cake is lekker*, *Dit is een dik boek* en *Deze cake heeft nootjes* verschillen niet zo veel van elkaar. In alle gevallen gaan we er van uit dat anderen met ons eens moeten zijn. Ze zijn allemaal normatief

maar niet allemaal van dezelfde aard. Dit wordt verklaard door de verschillende wijzen waarop het Kantiaanse reflecterende oordeel in aanmerking komt. Normatieve vorderingen kunnen soms worden ondersteund met rationele bewijzen, maar niet altijd, zoals bij smaakoordelen en andere evaluatieve oordelen. Zogenaamde avowals als *Ik heb hoofdpijn* of zekerheden zoals Moores beruchte *Dit is een hand* zijn in dit opzicht vergelijkbaar met *Deze cake is lekker*. Het late werk van Wittgenstein, met name in de epistemologie en in de filosofie van de psychologie, legt uit waarom deze claims zo moeilijk te weerleggen zijn. Avowals en zekerheden brengen een opvatting naar voren van het noodzakelijk belichaamd en sociaal subject. Subjectiviteit ontwikkelt in de tussenruimte van subjecten. Het is constitutief afhankelijk van wat er gebeurt buiten in plaats van binnen, in hoe het handelt.

De tweede stap is om de overeenkomende elementen gevonden in hoofdstuk 3 in een breder perspectief te plaatsen. In hoofdstuk 5 laten we zien hoe intentionaliteit in een bredere manier opgevat kan woorden ten opzichte van de notie van betekenis binnen de waarheidsconditionele aanpak. Voor de fenomenoloog Merleau-Ponty wordt intentionaliteit onlosmakelijk verbonden met belichaming. Operatieve intentionaliteit, het soort gerichtheid die we herkennen in doelgerichte beweging, is de basis voor alle cognitie. De subjectiviteit in de betekenis van *lekker* of *dik* wordt verklaard door het feit dat de cognitieve agent belichaamd is en dat hij door middel van talige uitingen zijn affectieve reacties uitdrukt. Op deze basis, en door de notie van affordance, de handelingsmogelijkheden die de omgeving biedt aan vaardige agenten, kunnen we de betekenis van een oordeel zoals *Deze cake is lekker* vastzetten als de handelingsmogelijkheden die we daarmee aanduiden. We nemen deze verbreding van de notie van betekenis als de belangrijkste bijdrage van dit onderzoek.

De vraag waarmee we dit onderzoek ingingen stond als een probleem voor semantici en taalfilosofen die een interesse hebben in de formele uitwerking van betekenis. Deze bijdrage kan voor hen pas van belang zijn als deze hervormde notie naar een formele weergave van de semantiek van gradeerbare bijvoeglijke naamwoorden en van de zinnen die we met deze woorden kunnen maken kan leiden. In hoofdstuk 6 schetsen we een model in de vorm van een update systeem. Daar spelen verwachtingen een cruciale rol om een formele opvatting van handelingsmogelijkheden in de betekenis van *lekker* en *dik* te brengen. Het systeem biedt een basisimplementatie die ons laat zien dat onze redenering in hoofdstuk 5 tot een systematische behandeling van de betekenis van evaluatieve oordelen leidt. Een bredere opvatting van betekenis kan binnen de bestaande semantische kaders ondergebracht worden.

We concluderen in hoofdstuk 7 met het gebruikelijk uittreksel. De subjectiviteit van bijvoeglijke naamwoorden als *lekker* en *dik* is helemaal niet mysterieus als we het door de lens van belichaming bekijken. Natuurlijke taal ontstaat in een menselijke omgeving. Mensen zijn vleselijk geesten, geestelijke lichamen. Dit is vaak niet zichtbaar voor de semanticus aan het werk. De casus van gradeerbare

bijvoeglijke naamwoorden zoals *lekker* en hoe deze verbonden zijn met eenvoudigere bijvoeglijk naamworden zoals *dik* zet de kwestie op tafel. Het vraagt ons om betekenis, het object van studie van de semantiek, te heroverwegen. We voegen aan het einde een algemene opmerking toe over hoe we een probleem voor heel analytische filosofen door een enigszins continentale aanpak proberen op te lossen. Dit proefschrift toont aan een samenwerking van de fenomenologie en de semantiek mogelijk is. Als je betrokken bent bij (taalkundige) betekenis, is het een goed idee om van tijd tot tijd wat aandacht te geven aan zijn mogelijkheidsvoorwaarden.

Summary

Affecting meaning

Subjectivity and evaluativity in gradable adjectives

This dissertation investigates the meaning of gradable adjectives like *tasty* and *long*, and of sentences we can produce with these terms. In English you can say, for instance, *This cake is tasty* or *This is a long book*. We can enter into disputes which are hard to settle. It appears that no one has the upper hand because *tasty* and *long* are, in some sense, subjective. The purpose of our research is to get a precise idea of the sense in which we can say that the meaning of gradable adjectives like these is subjective.

Formal semanticists and philosophers of language have recently paid much attention to the subjectivity of adjectives like *tasty* because the intuitive analysis of a taste dispute challenges the traditional truth-conditional approach to meaning. We argue that to get a grip on how subjectivity enters into the meaning of gradable adjectives, one has to adopt a more encompassing view of meaning than the truth-conditional one. We need a broader view of intentionality. Adjectives like *tasty* and *long* are subjective in the sense that they signal how people can act, and how they expect others should act. The subjectivity of taste and of other experiences we communicate in language follows from the fact that experience is given to embodied agents. We sketch a notion of embodied intentionality ensuring that it encompasses, but also outweighs, truth-conditional content. The aboutness of evaluative judgements like *This cake is tasty* or *This is a long book* involves a mesh of information and affect. We appeal to the notion of affordance in order to specify how expected patterns of behaviour can be constituents of meaning. Affordances are action possibilities offered by the environment to agents with abilities which are, by and large, shared with others. In our account, evaluative judgements communicate our responsiveness to relevant affordances.

This sounds like an odd idea of linguistic meaning, certainly if one's aims and interests are of a formal nature. Can we do mathematics on this sort of meaning? We sketch an update system, a simplified model showing the mechanics of embodied intentionality in how agents interpret sentences like the ones above, and some other ones as well.

Unsurprisingly, chapter 1 is devoted to the general introduction and preliminaries, so our overview of the dissertation starts with chapter 2.

If you look at adjectives as a kind of word, you can single out gradable ones because they come with a comparative form (you can say *This cake is tastier than that pie*, or *This book is longer than that dictionary*), you can modify them with an adverb like *very* (think of *This cake is very tasty*, or *That is a very long book*), and you can easily find an antonym for them (for instance *This cake is disgusting*, or *That is a very short book*). You can also find those features for *full vs. empty* or *open vs. closed*, but *tasty* and *long* are evaluative: You can exclaim *What a long book!* or *What a tasty cake!*. It would be rather strange to hear *What a closed door!* So consider gradable adjectives which are evaluative. Now zoom in again to see if they are all subjective in the sense suggested above. Are they subjective in the same way? In chapter 2, we start with a description of the general features of gradable adjectives, we locate adjectives like *tasty* and *long* as nexts-of-kin in the family, and we present a few linguistic traits to suggest that not all of them are subjective in the same way. As suggested above, some adjectives lead to disputes which are hard to settle. One can also think of the following fact: we can say *I find this cake tasty* or *Bea finds this book long*. But if our discussion is about whether Joyce's "Ulysses" is longer than Baricco's book "Silk", the dispute is rather easily settled. And if you think of the two following claims, you will probably see that that the first one is odd but the second one is not: *This is tasty but I don't find it tasty* and *This is heavy but I don't find it heavy*. So the initial question, "in what sense are *tasty* and *long* subjective?", now has to consider that these two are not subjective in exactly the same way.

In chapter 3, we give a concise review of two debates in semantics that cross our research question. On the one hand, people have analysed and formalised gradability in different ways. On the other hand, in recent years the debate on the semantics of adjectives like *tasty* has become a battlefield for different perspectives on linguistic meaning. The positions in these two orthogonal debates adopt a truth-conditional view on meaning, except for the expressivist accounts, which actually have proposed to complement truth-conditional semantics with a non-cognitive layer of meaning to handle subjectivity. One can assess these positions considering their specific merits and threats, but in view of this common foundational root one can also identify two common denominators. They all conceive of subjectivity as a form of judge-dependence, and they end up objectivising subjectivity.

The strategy deployed by most existing theories to account for subectivity in the meaning of *tasty* is to add in the semantic picture a a judge (often but not always the speaker) deciding the truth, content, evidence, or attitude that taste judgements convey. When subjectivity is conceived as some form of judge-dependence, the condition of being a subject is reduced to the confines of an individual. But if we conceptualise the rule for correct application of a term as something that is up to single agents, we are left with no public and intersubjective

criterion according to which we can distinguish applications from misapplications.

Mainstream approaches to gradability which also handle subjectivity as judge-dependence view the subject as a factor deciding for instance which standard of comparison prevails in a context, or which objects one should compare to say whether a given cake is tasty. But in this case, an agent's experience with an object becomes irrelevant because what decides whether, e.g., this cake is tasty is given by how the cake we are tasting relates with other similar objects. The expressivist might seem to escape this second threat but by dissociating prescriptive meaning from descriptive meaning, they are forced to explain how these two sorts of meaning interact. The moral of this critical revision is that, to make some progress, we need to develop a non-objectivising, non-individualistic notion of subjectivity.

The first step in our positive story starts in chapter 4 with a short detour to the epistemology of taste. In a taste dispute Alf says *This cake is tasty* and Bea disagrees saying *No, it's not* shows that the subjectivity of *tasty* does not turn the speaker's judgement into a claim that just concerns himself. The addressee is concerned, this is why she protests. Kant idea of reflective judgement, with some stretching, can bridge taste judgements, other evaluative judgements, and regular non-evaluative ones. *This cake is tasty*, *This is a long book*, and *This cake has nuts*, are actually not that different. In all cases we take it that others should agree with us, they all make normative claims, but not all of the same nature, which is explained by how reflective judgement is involved in each case. Normative claims can sometimes be backed up with rational justifications, but not always. Other claims are similar to taste judgements in this respect, as for instance avowals like *I have a headache* or certainties like Moore's notorious claim *This is a hand*. Wittgenstein's late epistemology and philosophy of psychology sheds light on why these claims are so hard to deny. Avowals and certainties put forward the embodied and embedded condition of the subject. Subjectivity develops in the interspace of subjects and constitutively depends on what happens outside rather than inside a subject, on how she acts.

The second step is to put the common denominators found in chapter 3 in a wider perspective. In chapter 5, we show how intentionality can be conceived in broader terms than the notion of underlying the idea of meaning that comes with truth-conditional semantics. For the phenomenologist Merleau-Ponty, intentionality is inextricably related to our embodiment. Operative intentionality, the kind of directedness we recognise in purposive movement, is basic for all cognition. The subjectivity in the meaning of *tasty* or *long* is explained by the fact that the cognitive agent is an embodied agent who signals her affective responsiveness. On this basis, and through the notion of affordance, as the relevant action possibilities that an aspect of the environment offers to a skilled agent, we can specify the meaning of a claim like *This cake is tasty* through the action possibilities it signals. We take this broadening of the view of linguistic meaning as the main contribution of this research.

But the initial problem was an issue for semanticists and philosophers of language with formal inclinations. So if this contribution can be of interest to them, in can only do so if we show that such conception can lead to a viable formal treatment of gradable adjectives and sentences we can produce with them. In chapter 6, we sketch a model which takes the shape of an update system, and which exploits the notion of expectation to cash out formally the way in which action possibilities enter into a model of the meaning of *tasty* and *long*. The system provides a proof of concept letting us see that our reasoning in chapter 5 leads to a systematic treatment of of the meaning of evaluative judgements. A broader conception of linguistic meaning can be accommodated within the existing semantic frameworks.

We conclude in chapter 7 with the usual wrapping up. The subjectivity of adjectives like *tasty* and *long* is not at all mysterious when looked through the lens of embodiment. Natural language arises in a human setting. Human beings are fleshed minds, minded bodies. This is often not visible when one is doing semantics. The case of gradable adjectives like *tasty* and how it relates to more ordinary ones like *long* puts the issue on the table. It prompts us to rethink linguistic meaning, the object of study of semantics. We add at the end a more general note about how in our research, to tackle a problem for quite analytically minded philosophers, we adopt a rather continental approach. This work shows that phenomenology and semantics can cooperate. If one is concerned with linguistic meaning, paying attention from time to time to its conditions of possibility seems like a reasonable move.

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