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# ON WHAT WE EXPERIENCE WHEN WE HEAR PEOPLE SPEAK

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## *abstract*

*According to perceptualism, fluent comprehension of speech is a perceptual achievement, in as much as it is akin to such high-level perception as the perceptual of objects as cups or as trees, or of people as happy or as sad. Accordingly to liberalism, grasp of meaning is partially constitutive of the phenomenology of fluent comprehension. I here defend an influential line of argument for liberal perceptualism, resting on phenomenal contrasts in our comprehension of speech, due to Susanna Siegel and Tim Bayne, against objections from Casey O'Callaghan and Indrek Reiland. I concentrate on the contrast between the putative immediacy of meaning-assignment in fluent comprehension, as compared with other, non-fluent, perhaps translation-based ways of getting at the meaning of speech. I argue this putative immediacy is difficult to capture on a non-perceptual view (whether liberal or non-liberal), and that the immediacy in question has much in common with that which applies in other cases of high-level perception.*

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## *keywords*

*speech perception, experience of high-level properties, perception and thought, cognitive phenomenology*

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**1. Introduction** When someone speaks within earshot in a language in which we are fluent, we inevitably, and seemingly immediately, register his or her vocalization as having a certain meaning. In this paper, I address two questions about such registrations, each of which has recently attracted much interest.

First, what role does our grasp of meaning have for what it is like for us to take in the utterance? According to “conservatism”, grasp of meaning is at most causally relevant to the phenomenal character of speech comprehension. Its phenomenal character, or phenomenology for short, consists entirely in lower-level sensory or affective phenomenologies: perceptual experiences of pitch, loudness, phonological structure, or mouth movements; sensory imagery; brute feelings of familiarity; or the like. On the rival, ‘liberal’ view, grasp of meaning is part of, or partially constitutive of, what it is like for us to take in the utterance. To fully specify what it is like for us to register the utterance, one needs to specify what meaning we are understanding it to be expressing<sup>1</sup>.

Second, to what extent is our grasp of the meaning of the vocalization a perceptual accomplishment? In other words, to what extent is grasp of meaning part of a perceptual impression of the utterance, and to what extent is it achieved only at an extra-perceptual level? According to what I shall call “perceptualism” grasp of meaning is achieved at a perceptual level; according to what I shall call “intellectualism” it is achieved only at an extra-perceptual cognitive level<sup>2</sup>.

The two questions are logically and conceptually independent. Liberalism is consistent with perceptualism as well as intellectualism. For the liberal perceptualist, hearing familiar speech is, at a matter of its phenomenology, a perceptual experience of that speech as expressing a certain meaning. For the liberal intellectualist, in contrast, grasp of meaning is constitutive not of the phenomenal character of the specifically *perceptual* experience of the fluently understood speech, but only of the phenomenology of an extra-perceptual act of meaning-assignment. Likewise, conservatism is compatible with both perceptualism and intellectualism. For the conservative perceptualist, speech interpretation is a perceptual accomplishment,

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1 Defenders of liberalism include Strawson 2011 and Siewert 2011. For conservatism, see, e.g., Carruthers & Veillet 2011 and Tye & Wright 2011.

2 Perceptualism is defended by Pettit 2010, Azzouni 2013, and Brogaard *forthcoming*, amongst others; intellectualism *inter alia* by Stanley 2005 and O’Callaghan 2011.

but one that is at most causally relevant to what it is like for us to understand speech. On this view, semantic representations would no more figure in the phenomenology of speech perception than, say, alleged early visual representations of binocular disparity figure in the phenomenology of vision<sup>3</sup>. Finally, on a conservative intellectualist view, assignment of meaning to speech is both extra-perceptual and extra-phenomenological.

I will here address the questions of liberalism vs. conservatism and perceptualism vs. intellectualism by considering an influential line of argument for liberal perceptualism, put forward by Siegel (2006) and Bayne (2009). Their argument relies on the widely agreed phenomenal contrast between hearing speech in an unfamiliar language – hearing it as mere sounds, as it is sometimes put – and hearing the same language being spoken when one has become fluent in the language. Siegel and Bayne argue that this contrast is best explained by a liberal perceptualist view, on which it is part of the phenomenology of the auditory experience of fluently understood speech that we hear it as expressing a certain meaning. Their argument has been criticised by O’Callaghan (2011), who offers an alternative, and, he argues, preferable, account of the phenomenal contrast here, according to which it is down to a shift in auditory phenomenology constituted by awareness of language-specific but non-semantic features. Becoming fluent in a language, he observes, involves learning to hear its language-specific sounds. This affects what it is like to hear it. Recently, another, complementary critique of Siegel’s and Bayne’s argument has been offered by Reiland (2015). He argues that phenomenal contrasts in our registration of speech may be due to an extra-perceptual, cognitive phenomenology associated with the deployment of semantic competence. He suggests that an intellectualist account of this sort, appealing to extra-perceptual cognitive phenomenology, can be given on both a conservative and a liberal view of the posited cognitive phenomenology here.

In section 3 below, I outline, in somewhat greater detail, this just-sketched debate over Siegel’s and Bayne’s abductive, contrast-based, argument for liberal perceptualism. I also explain, drawing in part on arguments in Reiland, why O’Callaghan’s account does not seem to extend to all phenomenal contrasts in hearing speech.

Section 4 turns to examining Reiland’s suggestion that cognitive phenomenology, of an extra-perceptual sort, can be invoked to handle phenomenal contrasts in our registration of speech – in particular: that it can account for any phenomenal contrasts to which an O’Callaghan-style treatment does not apply. I focus on what I shall dub “subtitle cases”. These are comparisons in which each of two hearers come to assign a certain meaning of some speech, say in Italian, and where a concurrent translation is provided, say in English, yet where only one of the hearers relies on the concurrent provision of a translation to understand the Italian speech. I suggest there can still be a phenomenal contrast in how the Italian speech is taken in here, and that this raises a challenge for the appeal to extra-perceptual cognitive phenomenology. I consider, in turn, how a conservative and a liberal intellectualist can respond to it. Looking at some familiar conservative resources, e.g. appealing to sensory imagery or to feelings of familiarity or of knowing, I find them lacking. I then turn to some liberal intellectualist options, including appealing to phenomenal objectual unity (versus lack of such unity) between semantic and lower-level auditory properties, and to sense of the causal dependence

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<sup>3</sup> Conservative perceptualists are not, of course, committed to assigning the same status to perceptual representations of semantic properties as to alleged early visual representations of binocular disparity on any notion of consciousness. They are, for example, free to insist that the former are access conscious, but not the latter (cf. Block 1995).

(versus lack of such a sense) of the entertaining of semantic content on the speech heard. I shall find that each of these options confronts a dilemma: either the posited phenomenology is perceptual, contrary to intellectualism, or it can be shared by someone limited to a non-fluent understanding of speech.

Section 5 considers an intellectualist rejoinder to the dilemma just indicated. The rejoinder has it that we have underplayed the importance, even for the intellectualist, of the immediate, non-deliberate way in which understanding is reached, in the fluent case. Even for the intellectualist, this rejoinder has it, it is vital that ordinary fluent understanding is reached in a way that contrasts with, inter alia, conscious inference, testimony, wishful thinking, and several other cognitive processes. The question, though, is whether the intellectualist can characterize this ordinary, fluent way of achieving understanding without doing so in terms that suggest that it is perceptual. The perceptualist will object that the leading features of fluent comprehension, apt to cash out its distinctive immediacy as compared with less-than-fluent comprehension, are characteristics shared with high-level perception, and that these features, taken together, support the classification of fluent comprehension as perceptual. I conclude that, at the least, an adequate intellectualist response to Siegel's and Bayne's contrast-based argument for liberal perceptualism remains to be given.

However, before turning to the examination of this contrast-based argument, I pursue some ground-clearing, in section 2. What notion, or notions, of meaning, perception, and phenomenology are in play in these debates over liberalism vs conservatism, and perceptualism vs intellectualism? In particular, I consider in some detail how the choice between different candidate notions of meaning matters to these debates, notably the choice between less and more context-sensitive notions of meaning.

**2. On the notions in play** So far, the issues at stake have been put in terms of whether grasp of meaning is part of phenomenology or of perception. What notions of "meaning", "perception" and "phenomenology" are in question here? I will address them in reverse order, devoting by far the most attention to that of meaning.

**2.1. "Phenomenology"** I take "phenomenology" to refer to the defining dimension of experiential states or events – the states or events that make up our overall experience, our conscious, subjective, experiential life. The phenomenology, or phenomenal character, of such states or events consists in their specifically experiential, subjective properties, those that make up what it is like for the subject to be in the states or events in question. Although phenomenal character to be sure is well exemplified by the painfulness of pains, the radiant way the horizon is presented to one when seen at sunset, and kindred sensory-qualitative dimensions of conscious events, one should be careful not to definitionally restrict, right from the outset, phenomenal character to such sensory-qualitative paradigms. Believers in an irreducibly cognitive phenomenology believe conscious thoughts, experiences of understanding speech, sudden mathematical or moral insights, etc. have a phenomenal character of a quite different sort from these sensory-qualitative paradigms.

**2.2. "Perception"** Talk of "perception" is sometimes understood by way of opposition to cognition, sometimes as a special case of cognition; accordingly, two diametrically opposed ways of talking could be distinguished: one on which anything which is perceptual ipso facto is *not* cognitive, and one on which it ipso facto *is* cognitive. I here adopt neither way of talking. As against the first, I leave open that there may be some overlap between perception and cognition; as against the second, I leave open that some aspects of perception may not be cognitive. We may refer to extra-perceptual cognitive processes as "intellectual", in line with my labelling

of the perceptualist's opponent as the "intellectualist", although that should not be taken to suggest that any intellectual process must be one of conscious, reflective reasoning, or a matter of general intelligence. While there are clear paradigms of perceptual and intellectual states or processes (e.g., seeing the shape of nearby objects, and deliberating about the cause of my car failing to start, respectively), there is no shortage of controversial cases, whose place in relation to the often-unclear boundary of the perceptual remains disputed (they include, of course, precisely the case of fluent speech comprehension). Relatedly, there are few uncontroversial necessary or sufficient conditions for a mental state to be perceptual.

It would be widely agreed, though, that perception (or, perhaps more precisely, perceptual systems) has many of the interrelated features Fodor (1983) assigned to "input systems" and to modules more generally. To briefly record these features (in no particular order), perceptual systems are (i) fast; (ii) mandatory, i.e., roughly, automatic, in their operation once spurred into operation; (iii) they develop with a characteristic pace and sequencing, in a largely culturally invariant way; (iv) they are susceptible of selective impairments that leave other cognitive and perceptual skills intact; (v) they are at least comparatively insulated from conflicting background beliefs, as shown by the persistence of illusions recognised as such<sup>4</sup>; (vi) they have what Fodor called a comparatively "shallow" output (a point we shall return to presently); (vii) they are domain specific, at least in the sense that they are stimulated into action by a specific, limited range of stimuli; (viii) in so far as perceptual systems rely on intermediate levels of representational states between initial stimulus and output, they exhibit limited conscious access to these interlevel representations; and (ix) they rely on dedicated neural hardware. We shall return to these marks in section 5 below, where we shall consider to what extent they are exhibited by speech comprehension.

For now, I will briefly pick up on what Fodor alluded to with his talk of the "shallowness" of perceptual outputs. He took this to be a measure of the degree to which the informational/representational contents outputted by perception are constrained (1983, p. 87). Degree of shallowness, Fodor argues, connects closely with the question of inferential sensitivity to background beliefs:

If, for example, the visual analysis system can report only upon the shapes and colors of things (all higher-level integrations being post-perceptual) it is correspondingly plausible that all the information that system exploits may be represented internal to it. By contrast, if the visual system can deliver news about protons ..., then the likelihood that visual analysis is informationally encapsulated is negligible. Chat about protons surely implies free access to quite a lot of what I have been calling 'background knowledge' (1983, p. 87).

Since Fodor holds perception to be encapsulated, this passage might be taken to suggest that he intends to limit its output to the representation of shapes and colours, or to representations with nonconceptual content<sup>5</sup>. Fodor argues, however, that some higher-level representational states, notably ones that classify things under such basic level categories as *cat* or *dog*, *tree* or

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<sup>4</sup> It will be noted that the feature indicated in the text here is weaker than what Fodor calls informational encapsulation, and which he regards as a key feature of modules. I emphasise the weaker feature in the text here, which Fodor sees as good evidence of informational encapsulation, since it is less controversial that perception has it than informational encapsulation itself, especially for the case of high-level perception. We shall return to this point in section 5 below.

<sup>5</sup> For a construal of "shallow" output on which it involves a limitation to nonconceptual representations, see Carruthers 2006, p. 4.

*table*, or the like, are genuinely perceptual. I shall here follow this assumption that at least some would-be “higher-level perception” is genuinely perceptual. This is in part because I take it to be plausible<sup>6</sup>. Moreover, it would be widely agreed that *if* understanding speech is ever perceptual, it would qualify as a form of high-level perception. If there is no such thing as higher-level perception, perceptualism is doomed. At the same time, it is at least very far from obvious that the question whether some form of higher-level perception is genuinely perceptual stands or falls with the question whether understanding speech ever is perceptual; it seems safe to say that some other putative cases of higher-level perception (including, for example, perception of people as undergoing certain emotions, cf. Block 2014) are arguable candidates, on arguably independent grounds, for genuinely perceptual status. Thus the assumption that some higher-level perception is genuinely perceptual does not beg the question at stake between perceptualists and intellectualists. If one is nevertheless sceptical of the assumption, the following can be read as an exploration of what could be said of understanding speech conditionally on its truth. The assumption will, in any case, turn out to matter, e.g. to the question just how strictly we can take certain Fodorian marks to apply to perception generally, considered to have high-level perception among its cases. In assuming that some high-level perceptions are genuinely perceptual, I do not yet mean to take a stand on their phenomenal character. I leave it open, at least for now, whether their phenomenology goes beyond that of lower-level perceptual states, and what the nature of any such further phenomenology might be. We return to the issue of the phenomenology of high-level perceptual states in section 2.3.2 below.

**2.3. “Meaning”** In what sense of the word “meaning” is “grasp or meaning” supposed to be internal to the perception of speech (by perceptualists) or to the phenomenology of understanding speech (by liberalists)? Clearly, a wide range of candidate notions of meaning could be tabled here. Towards one extreme, there are rich notions, such as that of what a speaker meant, in uttering such-and-such, where this may include various propositions that were merely implicated (cf. Grice 1989). Towards another extreme, there are thin notions, such as that of the standing linguistic meaning of linguistic types, or what Kaplan dubbed character, i.e. a (perhaps constant) function from some feature of the context of utterance to a semantic value (Kaplan 1989). The character of a sentence will commonly fall short of determining a truth-evaluable, propositional content, e.g. for sentences with indexicals. In between the extremes, there are various intermediate options. Notably, there is the Gricean notion of what is said. More recently, other, somewhat thinner notions in this intermediate territory have been articulated, such as that of “minimal propositions”, where the minimal proposition expressed by a sentence, in a context of utterance, is truth-evaluable, as the Kaplanian character of the sentence will often not be, but typically fails to correspond to what is said by an utterance of that sentence in that context, being less context sensitive<sup>7</sup>. Since there is such a wide choice of different notions of meaning, there is a correspondingly wide range of candidate distinctions between liberalism and conservatism, and between perceptualism and intellectualism, in so far as these views are characterised in terms of whether “grasp of meaning” is internal to phenomenology, or perception. In the next two sub-sections, we shall see that the choice between the indicated notions of meaning matters to the debates in question.

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<sup>6</sup> For one recent defence of the genuinely perceptual status of at least some cases of higher-level perception, see Block 2014.

<sup>7</sup> A role for minimal propositions is defended by semantic minimalists, such as Borg 2012, and Cappelen & Lepore 2005.

The choice between different candidate notions of meaning is important to the issue between perceptualism and intellectualism. It matters to the plausibility of perceptualism. Implicatures at least sometimes quite literally need to be “worked out”, to use Grice’s phrase (1989). At least sometimes, the retrieval of implicatures requires a modicum of cognitive effort. For example it might require a brief moment’s thought to realize that B’s reply here:

- (1) A: Will you go to the party?  
B: I have work to do.

implicates that B will not be going to the party<sup>8</sup>. If the relevant notion of what was meant by an utterance subsumes a moderately rich range of implicatures, and these implicatures not untypically are akin to that illustrated in (1) in respect of their processing demands, then perceptualism is not a credible view of how we grasp what was meant.

Indeed, in some cases, it would seem that at most something akin to Kaplanian characters are candidates for being perceived. For example, suppose I overhear an utterance of (2) below, hearing it as emanating from a small group of people chatting behind me on the tram:

- (2) I will lend you this one on Friday.

I do not perceive who is speaking, whom is addressed, or what the speaker might be intending to refer to with “this one”. If I get what the utterer of (2) is saying here, on the Gricean notion of what is said, I will get it only because I can somehow infer the answers to these questions, or learn them from informants. I do not hear what the utterer is saying straight off. It seems that the most I will get perceptually here, and all I will get if I cannot infer or learn who is speaking, whom is addressed, etc., is that (2) expresses a certain character, call it *C*.

This case might be taken to suggest that perceptualism will be easier to defend, the further one moves towards the thin, contextually invariant side among candidate notions of meaning. Another putative reason, pointing in the same direction here, is the following. It has been suggested that if, as perceptualists hold, there is a perceptual contrast between hearing speech with understanding, and hearing it uncomprehendingly, then that contrast ought to show up also when utterances of mere sub-sentential phrases or words are heard. Such utterances of sub-sentential phrases may well fall short of stating, affirming, questioning, or, more generally, saying something. Sub-sentential phrases, in other words, typically fall short of saying something. Let us look at an example. Perceptualist should be thinking, according to the present suggestion, that there is a difference between hearing the Estonian word “jäääär” (i.e. “edge of ice”) in isolation, depending on whether you understand it or not, but, since the word does not say anything in isolation, the difference cannot have to do with whether something is registered as what it says<sup>9</sup>. Now, if perceptualism is to apply to one’s grasp of meaning when hearing the word “jäääär” in isolation here, and (accordingly) the relevant notion of meaning not be one of what is said (as nothing is said), then an obvious alternative is that the relevant notion of meaning is that of some invariant lexical meaning of the word. Further, if lexical meaning is all that is semantically perceived in these cases, and we want a uniform account of what is semantically perceived in all cases of speech interpretation, perhaps the perceptualist more generally should identify the meaning that is perceived as one of lexical meaning. However, some sympathizers with perceptualism have argued that, at least typically, the

### 2.3.1. Choice of notion of meaning: bearing on perceptualism vs intellectualism

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<sup>8</sup> The example is due to Davis 2014.

<sup>9</sup> For this argument, see Reiland 2015, pp. 487-489.

most immediately consciously entertained item, when one fluently understands speech, corresponds to what is said therein, in something like Grice's sense. Fricker writes, of a typical case where someone understands speech:

The most immediate personal-level psychological effect of her auditing of the utterance is that she enjoys a representation of a distinctive kind special to language understanding: a conscious representation of the content and force of the utterance. She hears the utterance not merely as sound but as the speech act that it is (Fricker 2003, p. 325).

By "content" here, Fricker adverts to what is stated, asserted, questioned, or, in Grice's generic sense, said in the utterance. Likewise, Brogaard (*forthcoming*) has recently argued, following Recanati (2004), that what is consciously available, in comprehending speech, is not typically some contextually invariant lexical meaning, but what is said in a given utterance. Brogaard's argument invokes Recanati's view that polysemy is rife in language. For example, a word such as "man" can mean: a male human being; any human being; an activity of getting people to take care of some task ("man the fleet"); an activity a serving in some task ("man the ticket booth"); etc. Any constant linguistic meaning, of the word "man", must be such as to suit it for such a variety of expressive tasks; it cannot be limited to any one of the indicated meanings, but must either take the form of a list of them, or contain a few abstract, underspecifying features common to all of the indicated meanings, or have some other structure. Recanati contends it is implausible that we consciously entertain, perceptually or otherwise, such lexical meanings in ordinary speech interpretation. Thus, if a would-be perceptual access to meaning is supposed to be a case of conscious perception (as Brogaard argues it can and should be), the perceptualist must contend that the meaning that is perceptually accessed corresponds, at least typically, to what is said.

Fricker's and Brogaard's contention that we can, and often do, have a perceptual, or at least quasi-perceptual, awareness of what is said, in an utterance, is consistent with allowing that such awareness is not possible in some situations, such as when I overhear (2) on the tram. The perceptibility of what is said will vary depending on whether some non-perceptual form of cognition is needed in order to determine what is said from hearing the utterance and one's knowledge (such as it is) of the context<sup>10</sup>. Their contention is also consistent with the observation that there may well be a contrast between hearing a single word, such as "jäääär" in Estonian, between one who is fluent speaker and one who merely is familiar with the speech sounds of this language. The extent to which words are polysemous may vary. More importantly, even when a word is polysemous, it might be that one of its possible meanings tends to be accessed, by default, when it is uttered on its own. It is just that, on Fricker's and Brogaard's view, when one hears a word in isolation, especially a highly polysemous one (consider, for example, "over", capable of meaning, roughly, and inter alia, *above*, *greater than*, *across*, *on the other side of*, *covering*, etc.), the perceptualist is not committed to thinking that there will be any determinate meaning that is perceived.

In this paper, I follow Fricker and Brogaard in concentrating on the notion of what is said in an utterance, as a candidate for being what is accessed, perceptually, in understanding speech, at least in many typical cases. However, anyone who is at most willing to contemplate, as a

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<sup>10</sup> This formulation of course makes salient the question just how to distinguish perceptual from non-perceptual forms of cognition. This will be an important issue throughout this paper. We will return to it notably in section 5 below.



credible candidate for being perceived, some less context-sensitive semantic properties, such as minimal propositions or even Kaplanian characters, could re-interpret the arguments below in those terms. The claim that such semantic properties are perceptually represented would still be interesting and controversial<sup>11</sup>.

How, if at all, does the choice between the indicated notions of meaning matter to the issue between conservatism and liberalism about phenomenology? Before addressing this question directly, it will be helpful to take a few steps back.

In the introduction above, we said the liberalist affirms, while the conservative denies, that grasp of meaning is partially constitutive of what it is like to take in an utterance that we understand. However, that remark should not be seen as an attempt to articulate the underlying, defining difference between liberalism and conservatism. Rather, it purports to point out a disagreement that flows from a more basic disagreement (or, at least: that flows from this more basic disagreement on at least some important notions of meaning). The underlying disagreement in question here is over a certain broadly reductive claim that the conservative affirms and the liberal denies. The claim has it, at least to a first approximation, that the phenomenology, if any, of any broadly cognitive mental act, such as one of understanding an utterance, reduces to the phenomenology of associated sensory or affective states<sup>12</sup>. On the intended construal, this claim, distinctive of conservatives, subsumes both an eliminationist view that just denies that there is any phenomenology applying to cognitive acts and a reductionist view that admits that there is some phenomenology applying to cognitive acts (or, anyhow, interestingly associated with them) but that takes this phenomenology completely to reduce to the phenomenologies of associated sensory or affective states. However, the question arises here how broad the indicated reduction base, of “the phenomenologies of associated sensory and affective states” should be assumed to be. It is agreed that paradigmatic instances of phenomenally conscious sensory or affective states, for present purposes, include perceptual experiences of fine-grained paradigm sensible properties (colours, shapes, pitch, loudness, smoothness, etc), sensory imagery as of the same properties, and bodily sensations. I shall also assume that the reduction base includes certain “brute” epistemic or metacognitive feelings, such as a brute sense of familiarity or of déjà vu. To say that these are “brute” is to say that their phenomenal character is supposed to be individuated without reference to the conceptual content, if any, of these feelings. I include such feelings here in part as they have been invoked as a resource by such conservatives as Carruthers and Veillet (2011).

One key question, though, is how we are to classify high-level perceptual states for present purposes<sup>13</sup>. If the phenomenology of high-level perception reduces to the phenomenology of perceiving various constellations of colours, shapes, etc., then nothing hangs on this classification: admitting higher-level perceptions into the reduction base of “sensory or affective states” will not make a difference to what can be reduced to this base, assuming that reduction is transitive. However, suppose, alternatively, that the high-level perception has a

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11 Writers, including O’Callaghan (2011) and Reiland (2015), who deny that we perceive meanings would presumably deny, in particular, that we perceive Kaplanian characters.

12 This reductive claim is, roughly, the claim labelled “Reductionism” in Nes 2012. It is closely related to the claim Chudnoff (2015) dubs “Irreducibility”, viz. the claim that “Some cognitive states put one in phenomenal states for which no wholly sensory states suffice”.

13 High-level imaginative states, such as visualizing a car (as such), raises much the same questions. For simplicity, and since they are more directly relevant to our present concern with perceptualism vs intellectualism, I focus on the case of high-level perception.

phenomenology that is irreducible to the phenomenology of perceiving various constellations of colours, shapes, etc. Should that supposition be regarded as inconsistent with conservatism? Or should we rather view it as consistent with conservatism, and indeed as revealing that the conservative's reduction base of "the phenomenology of sensory or affective states" is richer than the list of paradigms above?

This depends, I think, on the explanation of the supposed phenomenological irreducibility of the relevant high-level states to lower-level ones. We may distinguish two options here. Suppose, first, that the distinctive phenomenology of the high-level perception is constituted, in part, by the activation of what we may call a cognitive/conceptual capacity. For example, suppose it constitutively involves deploying a sortal concept that the thinker also can deploy in her judgements and reasoning. In that case, it seems there would be a distinctively cognitive/conceptual contribution to the phenomenology of the high-level perception. I shall take it that a so constituted phenomenology ought to be excluded from the conservative's reduction base<sup>14</sup>. This is because some notable conservatives, such as Tye (2003) and Carruthers & Veillet (2011), deny precisely that there is any such distinctively cognitive/conceptual constitutive contribution to phenomenology. In the current dialectical context, a further reason for making this restriction is the following. If any phenomenology of any high-level perceptual state is regarded as conservatively kosher, just by virtue of applying to a perceptual state, there is no room debate between liberals and conservatives about the phenomenology of understanding speech *if* perceptualism is right. On perceptualism, fluent speech comprehension is a high-level perceptual state; its phenomenology would, of course, trivially reduce to itself, and so conservatism would hold good by default.

The second, alternative option to consider here is the following. Suppose, that the distinctive phenomenology of the high-level perception is fully accounted for by its manifesting a capacity shared with paradigm sensory states, but not with acts of judgement or reasoning. For example, suppose it derives from one's achieving, in the high-level perception, a form of acquaintance or direct awareness with the sortal kind that is perceived to be instantiated, where this form of acquaintance or direct awareness is unavailable in mere thinking or reasoning about the kind in question<sup>15</sup>. In that case, no distinctively cognitive phenomenology would seem to be realized in the case at hand; rather, the special higher-level phenomenology realized in the high-level perception would be due to an expansion of the range of a strictly perceptual relation, not to the activation in perception of a cognitive/conceptual capacity, such as concept also deployed in non-perceptual thinking. At the very least, then, the conservative would not, on this second supposition, have reasons for excluding the higher-level phenomenology from her reduction base on the ground that it imports a distinctively cognitive/conceptual contribution. So perhaps she would be prepared to include such higher-level, yet still distinctively perceptual, phenomenology<sup>16</sup>.

We can now return to the question how the choice between different notions of meaning bears on the issue between conservatism and liberalism. Should the existence of a phenomenology that constitutively includes grasp of meaning, and is irreducible to low-level sensory or affective states, be regarded as incompatible with conservatism on *any* of the indicated notions of meaning, or at most on some of them? It is quite clearly incompatible with conservatism on *some* notions of meaning. The latter include the familiar notion of what is said in an utterance.

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<sup>14</sup> In the terms of Nes 2012, this is to construe conservatism as committed to "hard-line reductionism".

<sup>15</sup> Just to make clear: I do not mean to take a stand here on whether it is so much as possible to have acquaintance or direct awareness of sortal kinds.

<sup>16</sup> We could distinguish a stronger or weaker form of conservatism here, depending on whether or not it would be prepared to allow for the existence of such a higher-level, yet still distinctively perceptual, phenomenology.

Suppose an utterance is one of saying that P, and you understand it as such, grasping the proposition that P as what is said in that utterance. This requires that you entertain the proposition that P in such a way that you have the cognitive wherewithal for acts of judging, rejecting, supposing or querying whether that P. For example, if someone lacks the cognitive capacity to judge, question, suppose or otherwise cognitively entertain the proposition that cats are mammals, we would not allow that they understood what someone said in affirmatively uttering “Cats are mammals”. The act of grasping an asserted, stated, proffered, or otherwise said proposition that P, required for grasping what is said in an utterance, thus seems to be the activation of a cognitive/conceptual capacity.

The matter is less clear-cut for some of the thinner, less context sensitive notions of meaning. For example, suppose that, when I overhear (2) uttered behind me on the tram, I am representing it as expressing C, where C is its complex Kaplanian character, composed from the characters of its constituent words. Since C is not a propositional content (it is not evaluable for truth), there is no such thing as judging, supposing, or querying whether C. Moreover, C is not a singular or general concept that the thinker can embed in complete, truth-evaluable thought by combining it with other concepts she possesses. In other words, C is neither itself a propositional content nor a potential constituent of a complete truth-evaluable thought. It does not seem to be the kind of thing that someone can think *with*<sup>17</sup>. Further, it might seem that an ordinary speaker may well lack conceptual resources to think *about* C<sup>18</sup>. Clearly, she may lack such concepts as *character*, or *function from such-and-such feature of context to thing referred to*, etc. Perhaps she can provide more informal glosses of C or its constituent characters. For example, with regard to “you”, perhaps she can say something along the lines of “by ‘you’, whoever is speaking means the person whom he or she was talking to”. Yet it seems a speaker may well have to engage in some reflection to articulate even such a rough gloss; it is not clear that she would be expressing a concept of C – or, rather, of the contribution “you” makes to C, call it C<sup>you</sup> – that she already deploys merely by virtue of representing (2) as expressing C. Alternatively, it might be suggested that the speaker has a concept of C precisely because she conceives of it as a meaning of (2). This cannot be the full story of how C is represented, however. Suppose I read on a map in Paris, “Vous êtes ici”. Being ignorant of French, I do not understand it. Yet I am quite capable of representing “Vous êtes ici” as meaning (trivially) what “Vous êtes ici” means. Thus the suggestion is unilluminatingly circular. The question we are asking is, “In representing ‘you’ to mean C<sup>you</sup>, how is it that one is mentally representing the relevant function here, i.e. C<sup>you</sup>?” It is unhelpful to answer, “One is representing C<sup>you</sup> as something ‘you’ means”. It is at least not clear, then, that ordinary speakers who understand (2) in the way I understand it when I overhear it on the tram, need to have the cognitive capacity to think with, or think about, C. Thus, if, in understanding (2) in the way I understand it on the tram, ordinary speakers represent (2) as expressing C, then this representational state is at least not clearly a distinctively cognitive/conceptual one, in the sense of manifesting the exercise of representational capacities also exercisable in

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17 This assessment will no doubt be challenged by some. See, e.g., Pitt 2013 for the suggestion that many or even all of our concepts, or the building blocks of our thought, are akin to Kaplanian characters. I am here assuming that concepts are so individuated that it is part of their functional role that they have, across their deployments, a unique reference in each circumstance of evaluation. (Note that, this can be part of the functional role of a concept – of how it is “supposed to” work in our cognitive economy – even if the relevant concept happens to fail to have a reference, or undergo a shift in reference.) Kaplanian characters uncontroversially do not have such a role: there is no unique person “you” is supposed to refer to whenever deployed. I will not pursue the matter any further here, as it would take us too far afield. For now, suffice to note that Pitt (2013) himself acknowledges his view as an unusual one.

18 The distinction invoked here, between thinking *with* something and thinking *about* something, is drawn from Byrne 2005.

paradigm cognitive acts of judging, reasoning, etc. Another way of putting the point is that the relevant representational state, in which (2) is represented as expressing *C*, qualifies as having nonconceptual content, in the sense that the canonical specification of its content will make use of concepts which the subject of the representational state need not possess, assuming that possession of concepts requires the capacity to deploy them in judging, reasoning, etc.<sup>19</sup>. Should we conclude, then, that it would be consistent with conservatism to take the phenomenology of my understanding of (2), when I overhear it on the tram, to be partially constituted by my representing (2) as meaning *C*, on the grounds that this is a nonconceptual representation, not involving the activation of concepts? I am doubtful. Although representing (2) as meaning *C* might not qualify as a conceptual representational state in the sense that the subject must possess all the concepts used in the canonical specification of its content (assuming, here, that possession of concepts in turn requires the capacity to deploy them in thinking), it might still be the activation of a capacity that is reasonably regarded as belonging with cognitive/conceptual capacities, for present purposes. I will briefly note two pertinent considerations here. First, the capacity to represent utterances as expressing a certain character seems to have a compositional structure. The character of a semantically complex expression is compositionally arrived at on the basis of the characters of its constituent expressions in a way that mirrors how the propositional content of a complex expression is compositionally arrived at from the semantic values of its constituents. To qualify as understanding what is said by a sentence one must exhibit some sensitivity to how this composition works. Similarly, if overhearing (2) involves representing it as having a certain complex character, *C*, one would expect this capacity to exhibit a sensitivity to how this composition of complex characters, from the characters of the constituents, works. So one would expect a deep structural commonality between the representation of what is said in an utterance and the representation of its character<sup>20</sup>. If the former is a paradigmatically cognitive/conceptual representation, this gives some support to classifying the latter with cognitive/conceptual forms of representation. Second, it is not clear what interesting commonalities that the representation of (2) as expressing *C* would have with paradigmatically sensory experience of objects or properties. For one thing, it seems characteristic of sensory awareness of objects or properties that it enables one, given that one has the general capacity for demonstrative thinking, to think demonstratively of the objects or properties in question<sup>21</sup>. Seeing a tennis ball before me, I can think of it as *that* one; looking at a paint sample, I can think of the shade it presents to me as *that* shade. Does the representation of an utterance, such as (2), as having a certain character come with any corresponding tendency to enable demonstrative thought about the character in question? On the face of it, it does not seem very compelling to think that it does. I will not here attempt to argue, from more basic constraints on demonstrative thought, that no such demonstrative thought about character would be enabled. I just record finding it hard to see how an independent motivation for positing such an ability could be provided. If, then, the representation of (2)

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19 If there is such a thing as a conscious or personal-level representation of utterances, such as (2), as expressing a certain character, and these representations are nonconceptual in the indicated sense, it amounts to an interesting expansion of commonly recognised candidate domain for nonconceptual representation content. The commonly recognised candidates for the nonconceptual content are limited to lower-level perceptual states, such as visual experiences of fine-grained colours or shapes, and sub-personal representational states, see Bermudez & Cahen 2012.

20 In the terms of Fodor (2007, pp. 107-108), one would expect the representation of (2) as having a certain character to be a discursive, rather than an iconic, representation, in that it would have a canonical decomposition: not all of its parts would be constituents (in the sense of representationally significant parts) thereof.

21 For a defence of such a link, see, e.g., Tye 2009. The statement of the link in the text is likely over-simplified in various ways (for one thing, it does not mention the role of attention).

as having a character *C* contrasts with perceptual awareness in this respect, and shares, with paradigmatically cognitive/conceptual representations of what is said, that it requires a sensitivity to compositional structure, there seems to be some grounds for regarding it as the exercise of a cognitive/conceptual capacity.

If this is the right way to classify it, then there are grounds for regarding the supposition that it is partially constitutive of what it is like for me to understand (2), when I overhear it on the tram, that I represent (2) as expressing *C* as not compatible with conservatism. It would turn out that, whether meaning takes the form of what is said or something less context sensitive such as character, grasp of meaning cannot be partially constitutive of the phenomenology of understanding, on conservatism. However, in light of the not-clearly-conceptual status of the representation of character, this verdict should be considered more qualified and provisional for the case of character than for that of what is said.

It is widely agreed that there typically would be a phenomenal contrast between hearing speech in an unfamiliar language, and hearing the same speech in the same language at a later stage, having become perfectly fluent in the language. The overall experiences of taking in the speech differ in phenomenal character, as between the as-yet-unfamiliar and the by-now-fluent case. Siegel (2006) and Bayne (2009) have argued that the phenomenal contrast here is best explained by a certain liberal perceptualist hypothesis. Their hypothesis could be construed as having two planks. The first plank is that the difference in phenomenal character between the overall experiences here consists, in part, in a phenomenal difference between the auditory experiences involved. The second plank is the claim that phenomenal difference between the auditory experiences consists, perhaps in part, in the presence versus the absence of an auditory representation of the meaning of the heard speech. It is the second plank here that makes their view perceptualist, in that it claims that a representation of meaning is achieved at the level of auditory experience. It is also this second plank that makes their view liberal, in that this representation of meaning is held to be partially constitutive of the phenomenology of the experience in question.

Siegel's and Bayne's abductive argument here has been criticised by O'Callaghan (2011). He does not deny the first plank of Siegel's and Bayne's hypothesis, i.e. that there is a phenomenal contrast in auditory experience in the relevant cases. His disagreement is with the second plank. O'Callaghan observes that achieving fluency in a language involves acquiring a facility for registering not only meaning-properties of the relevant language, but also several non-semantic language-specific properties thereof. Notably, one needs to master the phonemic structure of the language and become capable of detecting word boundaries. These capacities will not typically be in place for an as yet un-mastered non-native language. In contrast, when one has become capable fluently of interpreting speech in that language, one not only grasps its meaning but registers these non-semantic, language-specific features. Thus an alternative, and arguably simpler explanation of the phenomenal contrast in auditory experience here puts it down to awareness of these non-semantic, language-specific features.

However, it seems there can be phenomenal contrasts in hearing speech to which O'Callaghan's account does not apply. One case for thinking so is offered in an earlier paper by Pitt (2004, p. 28-29). Instead of hearing speech in an unfamiliar language, he considers hearing an utterance of an unfamiliar sentence in one's own language, such as:

(3) The rhodomontade of ululating funambulists is never idoneous.

Pitt argues, plausibly, that many competent English speakers will be familiar with the phonology of this sentence, and parse it correctly, even if they fail to understand it. He

### **3. Phenomenal contrast I and II: alien speech vs fluency, and mere phonological vs semantic competence**

maintains moreover that there can be a phenomenal contrast here with someone who fluently understands (3). If so, it will be one to which O'Callaghan's treatment does not apply. In a recent paper, Reiland (2015) provides other arguments in favour of the existence of phenomenal contrasts in hearing speech that cannot be accounted for by a difference in one's familiarity with the speech sounds involved. He argues that one can be phonologically competent in a language without being semantically competent in it, and so not understanding it. For example, hearing a lot of Spanish music can make one familiar with the phonology of that language, without thereby coming to know what its words or sentences mean. (Suppose that one hears a lot of music videos in Spanish, with the Spanish words appearing, Karaoke style, as subtitles as they are sung. This would facilitate picking up on word boundaries.) Similarly, opera singers who sing much in Italian can become highly competent in the speech sounds of that language without necessarily understanding what they sing. Further, Reiland observes, those who move from one language community to a quite different one at an early age, having only spoken the language of their initial community for a short while, and from then on only using their second language, can retain phonological competence for their native language, whilst often being unable to understand utterances in it. Now, if we compare hearing speech in a language in which one is fluent with hearing the same speech in a language in which one is merely phonologically competent, there can still be a phenomenal contrast, or so Reiland plausibly suggests. The latter contrast could not be accounted for by the considerations invoked by O'Callaghan.

However, Reiland shares O'Callaghan's reservations towards the liberal perceptualism of Siegel and Bayne, agreeing with O'Callaghan that an alternative explanation is to be favoured. His suggestion, for phenomenal contrasts to which O'Callaghan's treatment does not apply, is to reject the first plank of Siegel and Bayne's hypothesis, i.e. their suggestion that the phenomenal contrast in the overall experience of taking in the speech consists, in part, in a phenomenal contrast in the auditory experiences involved. An alternative and, he argues, preferable account of these differences is to take them to be due to phenomenologies associated with the (extra-perceptual) employment of semantic competence. Reiland is neutral between a conservative and a liberal view of the phenomenology associated with this employment. For the conservative, the suggestion would be that the employment of semantic competence comes with "sensory phenomenal accompaniments, like a feeling of familiarity or some sort of imagery" (2015, p. 491). On a liberal version, in contrast, that deployment might well involve a "distinctive cognitive phenomenology" (*ibid.*); plausibly, a phenomenology that constitutively involves grasping the meaning the vocalization is understood to have.

I agree that there can be phenomenal contrasts where the hearer, in each case, accurately perceives the phonetic structure, word boundaries, and indeed the syntax of some vocalizations, but grasps their meaning in one case only. I also agree that, in some sense, the phenomenal contrast here is due to phenomenological contribution associated with the employment of semantic competence. As I am here working with a broad conception of "cognitive phenomenology", where it suffices for phenomenology to be cognitive that it constitutively involves activating a cognitive/conceptual capacity, I agree, indeed, that the distinctive phenomenology involved in the fluent understanding of speech is a matter of cognitive phenomenology. However, on this broad conception, cognitive phenomenology is not necessarily entirely extra-perceptual; rather, it is up for grabs that perceptual experience can be laden or impregnated with cognitive phenomenology. The question, then, is whether the appeal to *extra-perceptual* cognitive phenomenology can do justice to the phenomenology of fluent understanding.

Let us consider some cases that match Reiland's except that a concurrent translation is added. I shall call them "subtitle cases". It seems that adding such a translation does not entirely cancel out the phenomenal contrast in how the speech is taken in.

Subtitle cases have the following structure. A hearer is (i) presented, at one and the same time, with an utterance and an inscription, belonging to different languages, or, perhaps, to different vocabularies from the same language; (ii) the utterance and the inscription have the same meaning (and the speaker knows, e.g. on the basis of prior testimony, previous experience, or in some other way, that they do); (iii) the hearer is phonologically (and syntactically) competent with respect to both the utterance and the inscription; and (iv) the hearer is semantically competent with regards to either (a) only the inscription or (b) both the utterance and the inscriptions. I shall suggest that there can be a phenomenal contrast depending on whether (i)-(iv.a) or (i)-(iv.b) holds good.

For example, suppose that Rosemary and Blanche are fluent in English. Rosemary is fluent in Italian, whilst Blanche is merely phonologically competent in that language, having sung many times an aria in it, but never having learned the meaning of the words she has been singing. They are now watching a video where someone is speaking in Italian. At the same time, English translations appear as subtitles (they know them to be accurate). Here Blanche's case illustrates (i)-(iv.a), Rosemary's (i)-(iv.b)<sup>22</sup>. It seems to me there would typically be a phenomenal contrast here in how they experience the Italian. At least, this seems plausible to me, given that there can be a phenomenal contrast in such cases as considered by Reiland above, i.e. such cases are just like our current subtitle case minus the subtitles. For, surely, merely adding the known concurrent translations does not entirely cancel out the contrast in how Blanche and Rosemary experience the Italian speech. It is not to Blanche as though she all of a sudden – and quite miraculously! – understands Italian, just because the subtitles are added. To just gesture at the contrast involved here, we might say that Rosemary, but not Blanche, somehow hears the Italian words, as they are being spoken, as meanings such-and-such. Rosemary, but not Blanche, as it were hears through the words to their meanings. As their names suggest: Rosemary's experience of Italian is full of semantic spice, Blanche's is comparatively semantically bland.

Now, it might be pointed out that, for Blanche, there is a certain temporal structure in how she takes in the Italian. She first has to interpret the subtitles to get at their meaning, before attributing that meaning to the Italian speech. So it is possible to make a distinction between how that speech is presented to her before and after that attribution. However, although some phenomenal shifts may be associated with that distinction, I do not think it upsets the fact that there is, throughout, a difference in how Blanche and Rosemary take in the Italian speech. Whether the comparison between Blanche and Rosemary is made with respect to a time before Blanche makes a semantic attribution to the Italian speech or whether it is made with regards to a time at which she is making such an attribution, there seems to be a phenomenal contrast here.

If there are such phenomenal contrasts in a subtitle case, how can we account for them? After all, the semantically disadvantaged subject in our case, Blanche, does employ semantic competence. She fluently grasps the meaning of the English inscriptions, and, knowing them to be translations of the Italian vocalizations, correctly attributes those meanings to the latter. At least at first blush, then, this creates something of a challenge for the suggestion that the contrast here might be due to an extra-perceptual cognitive phenomenology associated with

#### **4. Phenomenal contrasts III: Subtitle Cases**

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22 Our hearers divide their attention, to the same degree, between the vocalization and the inscription.

the employment of semantic competence<sup>23</sup>. I shall discuss the conservative and liberal options here in turn.

**4.1. A conservative intellectualist treatment of Subtitle Cases**

On the conservative view of the relevant phenomenology, the phenomenology here is exclusively a matter of lower-level sensory or affective phenomenology. For concreteness, suppose Rosemary and Blanche hear “*il gatto è sul tappeto*” being spoken, whilst the translation “The cat is on the mat” appears. Upon taking this in, and deploying her semantic competence, Blanche may have visual imagery as of cats on mats (or, perhaps, because of some logic book she read back in the days, auditory imagery as of the name “Barwise”). A tiny warm glow of affection (her being partial to cats), and a familiar homely feeling (her always having had a cat at home) may be kindled in her breast. However, Rosemary, being as similar to Blanche as their different levels of competence in Italian allows, may well enjoy such imagery and affections too. The presence of such imagery or affections, related to the semantic contents of the phrases they are taking in, does not seem capable of accounting for the phenomenal contrast in how they are experiencing the Italian speech.

What about imagery or affections specifically directed at, or associated with, the Italian speech? Could it be that Rosemary enjoys, whilst Blanche distinctively lacks, a certain feeling of familiarity about the Italian speech? Could it be that Rosemary takes in and processes these words with a certain fluency, one Blanche falls short of? It is not clear, however, just what sort of difference would have to obtain here. It seems Blanche, for all we have said, might well enjoy various sorts of feelings of familiarity or fluency about the Italian speech. She might have sung many an Italian song where that very phrase, “*il gatto è sul tappeto*”, have prominently figured. These words by no means strike her as unfamiliar.

Moreover, we may assume that a more semantically based feeling of familiarity is operative in Blanche’s case, exemplifying a form of what students of metacognition call a “feeling of knowing”. An everyday example of having a feeling of knowing – in particular, a feeling of knowing the meaning of some word – would be the following. Reading some medical literature (as I rarely do), I come across the word “iatrogenic”. I may have a feeling of familiarity about this word that does not merely involve the feeling of having heard, seen, or even voiced it before, but also a feeling of knowing what it means, although I do not yet recall what it means, and even cannot recall it, if I try. However, if I were presented with an explanation of the word (e.g. “adverse effects of health care interventions”), I would immediately recognise it as something that I, at some level, knew all along. Indeed, my feeling of knowing the meaning makes me confident that I would recognise a correct explanation of the word, if presented with one. I take it that my feeling of knowing the meaning of the word here is phenomenologically quite different from the experience of immediately understanding the same word as having such-and-such a meaning.

Now, to return to Blanche, and her experience of taking in “*il gatto è sul tappeto*”, we may assume that these words have been explained to her at some point in the past, and that, as a result, a feeling of knowing their meanings immediately is kindled in her upon hearing them. Since she gets the English translation, that feeling swiftly gives way to the recognition that “Oh yeah, *that* is what these words are saying”. Even so, her experience of taking in the Italian speech would seem relevantly unlike Rosemary’s.

A feeling of familiarity with words, a feeling of knowing their meaning, or low-level sensory

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<sup>23</sup> I am not the first to have appealed to the contrast between ordinary fluent understanding of speech and a translation-based understanding to make a case for the perceptual, or at least quasi-perceptual, status of fluent understanding. Similar considerations are advanced in Fricker 2003.



imagery or affections related to the meanings of words, thus seem to be insufficient to capture the specific ways in which Rosemary's fluent understanding of the Italian speech is phenomenologically different from Blanche's more indirect grasp of its meaning. Are there any other, low-level sensory or affective phenomenologies here that could only be present in Rosemary's case, i.e. that would turn Blanche's case to Rosemary's, if Blanche had them? Although I fail to see just what these might be, I will not purport to exclude the possibility here. As I take conservatism to be independently implausible, I shall conclude merely that the challenge arising here for the conservative intellectualist seems a live one<sup>24</sup>.

What about the version that takes a liberal view of phenomenology? For the liberalist, the special phenomenology enjoyed by Rosemary may be of a higher-level, more cognitive sort. It might constitutively involve entertaining conceptual content. This content might be representing that the cat is on the mat, or perhaps that such-and-such an utterance or uttered sentence has the property of meaning that the cat is on the mat. Again, however, the indicated, conceptually laden forms of phenomenology do not, on their own, explain how Rosemary differs from Blanche. Nothing prevents Blanche from consciously entertaining the proposition *The cat is on the mat*, or mentally representing the property of meaning that the cat is on the mat. Indeed, she likely entertains this proposition, and may well consciously represent it as what is meant not only by the English inscription but also by the Italian speech. Thus there still remains a challenge, for the liberal intellectualist, to account for how Blanche and Rosemary differ in their experience of the Italian speech. I shall now consider some moves the liberal intellectualist might try here.

First, the liberal intellectualist might argue that, for Blanche, any representation of the semantic properties of the Italian speech would not be unified with the experience of hearing it in quite the way it is for Rosemary. After all, in so far as Blanche represents the Italian speech as having such-and-such a meaning (e.g. as meaning that the cat is on the mat), this representation is somehow mediated by and based on her interpretation of the English inscription. The liberal intellectualist might elaborate the difference in unity here in terms of Bayne and Chalmers' notion of objectual unity. They give the following example of the absence of such unity:

[T]wo experiences can be experiences of the same object without being objectually unified. I might see a car's shape and hear its noise, without anything in my conscious state tying the noise to the car (perhaps I perceive the noise as behind me, due to an odd environmental effect). If so, the experiences are not objectually unified (Bayne & Chalmers 2003, p. 25).

In contrast, in many everyday cases of seeing a car driving past, the properties of having a certain vehicular shape, a certain colour, making certain sounds, etc. are objectually unified: it is a feature of the phenomenal character of the experience that is presented to one that one and the same thing has these various properties. Plausibly, the term "objectual unity" should not be construed so as to require that the "same thing" here, i.e. the unity that is given as jointly bearing a range of different properties, must be an object as opposed, say, to an event. A range of properties can be objectually unified in that they are all given as applying to a single event. To take one simple case, loudness and pitch can be objectually unified for me in my experience of a certain chime of a church bell: that chime can be given to me as at

#### 4.2. A liberal intellectualist treatment of Subtitle Cases

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24 For arguments against conservatism, see Chudnoff 2016, Nes 2012, and Strawson 2011.

once loud and deep. Thus, we can ask, in particular, what properties are objectually unified for one in one's experience of a certain Italian vocalization? The present liberal intellectualist proposal is that, for Rosemary, semantic properties thereof are objectually unified with various lower-level auditory properties, whereas, for Blanche, they are not.

This account fails. Either the liberal intellectualist holds that the objectual unity between semantic and lower-level audible properties attained by Rosemary is a perceptual accomplishment, or the liberal intellectualist does not. In other words, either the liberal intellectualist claims that the objectual unity is a feature of the phenomenology of Rosemary's auditory experience, or she does not make that claim. Suppose she makes that claim. Then the contention that the attainment of objectual unity between semantic and lower-level auditory properties as loudness, pitch, etc. of is limited to Rosemary is plausible. But the resulting view is incompatible with intellectualism. If certain semantic properties of the vocalization are objectually unified with loudness, pitch, etc. at the level of the auditory experience of the vocalization, then the semantic properties must be part of the representational content of the auditory experience. But this is just what the intellectualist denies.

Suppose, on the other hand, that the relevant objectual unity need not be a perceptual achievement. Then the claim that Blanche fails to achieve such unity – that such unity is the preserve of Rosemary – is dubious. Properties that are, uncontroversially, discerned in a cognitive, extra-perceptual act may be objectually unified with sensible properties. Here is one illustration. Suppose I see two similar pens on a table before me. Someone lets me know that one of them used to belong to Wittgenstein. The property of having belonged to Wittgenstein will not yet thereby be objectually unified with either one of the two pens seen. However, my informant then lets me know, further, that it was, in fact, the left pen that was Wittgenstein's. It likely will, then, become part of the phenomenology of my overall perceptual cum cognitive experience that this pen here, having such-and-such a shape, colour, texture, etc., also belonged to Wittgenstein. Thus the property of having belonged to Wittgenstein becomes objectually unified, through my testimonially based judgement, with various lower-level visible properties in my experience of the pen. Clearly, such objectual unity between post-perceptually discerned semantic properties and audible properties is very much open to Blanche, in our case. She judges that *The cat is on the mat* is what the Italian vocalization, experienced as being so-and-so loud, nasal, etc., is meaning. Perhaps the liberal intellectualist will protest, at this point, that this sort of unification between semantic and lower-level audible properties was not what she had in mind when she claimed it to be characteristic of Rosemary. The problem, of course, is to spell out what this distinctive sort of unity is, without getting impaled on the first horn of the dilemma.

A second strategy the liberal intellectualist might pursue is to invoke causal consciousness. The idea here is as follows. Rosemary finds herself having in mind the thought that the cat is on the mat as a direct result of the Italian speech she is hearing. Not only does her entertainment of that thought as a matter of fact arise from that vocalization; it is a feature of what it is like for her to take in the speech that she is somehow aware of her thinking of that proposition as conveyed to her by the token speech, or so it might be argued. It is represented in her overall experience that this vocalization here is causing her to entertain the proposition that the cat is on the mat<sup>25</sup>. This representational content, moreover, is partially constitutive of the phenomenology of her overall experience. So, anyhow, the present suggestion goes. Blanche, in contrast, gets to entertain the proposition about the cat and the mat only through

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<sup>25</sup> For the idea that there is a causally reflexive aspect to the content of perceptual experience, see e.g. Searle 2015. (Of course, Searle is not necessarily committed to the specific application of this idea here.)

reading the English words. Again, the present suggestion avers, this causal fact is not entirely external to the character of her awareness. It is part of her experience that these written words on the screen there kindle in her the thought that the cat is on the mat. However, she has no awareness of that thought as arising from the Italian speech. The present liberal intellectualist strategy, then, is to suggest that such differences in their causal consciousness account for the phenomenal difference between Rosemary and Blanche. The one is aware of her thought as arising from the speech, the other as kindled by the words.

This second liberal intellectualist suggestion encounters, I will argue, essentially the same difficulty as the first. Either the posited causal consciousness is supposed to be a perceptual achievement, or it is not. Let us first consider the option that it is perceptual. In other words, the posited causal consciousness is a feature of the auditory experience of the vocalization. Somehow, the auditory experience represents the vocalization as causing this very entertainment of the thought that the cat is on the mat (or, alternatively, it represents the vocalization as causing me now to entertain the thought that the cat is on the mat, the difference between these options does matter for present purposes). If so, the content expressed by the vocalization, viz. that the cat is on the mat, is represented in the content of auditory experience. But if this content can be auditorily represented as one the vocalization prompts me to entertain, it is hard to see why it could not also be auditorily represented as what the vocalization means. That is inconsistent with intellectualism.

Suppose, on the other hand, that the indicated causal consciousness is not supposed to be perceptual. Then the trouble is this. We can, it seems, set up a case where Blanche does cognitively represent the vocalization as causing her to think that the cat is on the mat, yet where there still remains a phenomenal difference with Rosemary. Here is one proposal for such a case. Blanche knows, or anyway presumes, that the English subtitles appearing on screen are provided by a translator, who hears the Italian speech, and extremely quickly writes out the subtitles. She takes the appearance of the English subtitles to cause her to entertain the thought that the cat is on the mat, and those subtitles to be caused by the Italian vocalization. Since Blanche holds causation to be transitive here, she takes the Italian vocalization to cause her to entertain the thought that the cat is on the mat. Since Rosemary's alleged causal consciousness of meaning was not supposed to be perceptual, it seems Blanche is in a position to share it.

It might be objected to this case that there would still be a sense in which Blanche takes her entertainment of the thought about the cat and the mat to be *only mediately* caused by the speech, viz. by means of causing the subtitles. Could not the difference from Rosemary, then, be that the latter is aware of the speech as *immediately* evoking a thought of the cat and the mat? However, Blanche might come to find a causal connection between the Italian speech and the entertaining of the thought about the cat and the mat in some other way than by reasoning by transitivity of causation. For example, Blanche might have come mistakenly to think, through wishful thinking, being fooled by some quack, hypnosis, or whatever, that she is fluent in Italian. She now takes the thought of the cat's being on the mat to be evoked as immediately by the Italian speech as she takes it to be evoked by the English words. Her mistaken beliefs cannot, surely, be enough to ensure that she is experiencing the Italian speech in the same meaning-laden way as Rosemary is.

We have considered two ways of trying to capture the phenomenal contrast between Rosemary and Blanche in subtitle cases, on a liberal intellectualist view. We have argued that each confronts a dilemma. Either the posited representations, allegedly distinctive of Rosemary, are held to be perceptual, or they are not. In the former case, they may well be distinctive of Rosemary, but the resulting view is no longer intellectualist. In the latter case, then, since extra-perceptual, cognitive representations could be arrived in a great variety of

ways, including through inference, testimony, wishful thinking, hypnosis, or what have you, it seems Blanche may share the representations in question, and that her coming to share them, in one or another of the indicated, non-perceptual ways, need not bestow upon her the phenomenology characteristic of Rosemary's registration of the Italian speech. So we have yet to find a satisfying intellectualist treatment of subtitle cases, whether conservative or liberal.

**5. An intellectualist rejoinder and a perceptualist response**

Now, the intellectualist may object to our treatment of the non-perceptual horn of the dilemma outlined at the end of the last section. We have, the intellectualist complains, been writing as if any old non-perceptual way in which a representation of meaning properties could be arrived at is equal, by intellectualist lights. In particular, we may have seemed to be working on the assumption that the key liberal intellectualist suggestion about Rosemary is that she has a certain non-perceptual representation of meaning properties, where it is left entirely open whether this non-perceptual representation is arrived at by conscious inference, from testimony, immediately on the basis of audition, or in some other way. Yet, the intellectualist may argue, it matters how this non-perceptual representation is achieved. It is characteristic of Rosemary that this semantic representation is precisely *not* achieved by conscious inference, testimony or wishful thinking, but in some other, more immediate way, typical of fluent understanding of speech. In contrast, Blanche's representation of the semantic properties of the Italian speech, in so far as she attains one, is arrived not in the manner of ordinary fluent understanding, but precisely by an alternative cognitive route. This gives the intellectualist room for accounting for the difference between them, or so the intellectualist contends.

However, at this point the perceptualist may make the following response. It is true that the fluent comprehension of Rosemary is characterised by a certain form of immediacy as compared with the more unordinary manner of understanding achieved by Blanche. Yet, when we look more closely at this 'certain form of immediacy', characteristic of fluent comprehension, we shall find that it brings together a number of features that are characteristic of high-level perception. Thus, if high-level perception is genuinely perceptual, and the relevant features are suggestive of their classification as such, then the presence of these features in fluent comprehension is suggestive of a similar classification of the latter, at least until some other, special reason for classifying it otherwise has emerged. In brief, the perceptualist takes attention to the immediacy of fluent comprehension to speak precisely in favour of its classification as perceptual.

The perceptualist may distinguish two ways of approaching the certain form of immediacy in fluent comprehension, viz. via its phenomenology, or by appeal to facts about the sort of psychological processing involved (including computational and neural facts). I shall begin by briefly addressing the phenomenological route.

In a broad sense, cognitive acts could be said to be phenomenologically immediate if they are reached with no sense of effort and with no awareness of grounds from which they are inferred. Such immediacy is not the preserve of perception. We may suddenly recall isolated facts, or the solution to some problem that has been bothering us may strike us out of the blue. Yet, in such cases, what we recall or realise is very often not objectively unified with some currently perceived object or event. Even in the cases where there is such unification, such as when I am looking at a wooden ladel and suddenly recall it was made by my great grandfather, what I am recalling or realizing does not strike me as facts that, as it were, the perceived object or event immediately reveals about itself. There is a phenomenological dimension to suddenly recalling or realizing something, out of the blue, of (to vaguely gesture at it) not being plainly there to be seen straight off. This phenomenological aspect may apply to some unusual cases of speech comprehension. Hearing the French phrase, 'Le stylo est sur la table', it may

suddenly occur to me (who is virtually Frenchless) that it means that the pen is on the table (I may speculate this realisation springs from my father joking, decades ago, that his mastery of this phrase, which he duly explained, demonstrated his mastery of French). Yet such cases are clearly phenomenologically quite different from ordinary fluent comprehension. In those cases, the meaning seems just there to be heard, at once. This is not unlike how an ordinary cup, ordinarily visually presented, strikes us as plainly, obviously a cup, its status as a cup being just there to be seen. The kind of immediate access to meaning that we have in fluent comprehension thus seems akin a specifically perceptual form of immediacy, and to contrast with immediate insights and recollections<sup>26</sup>.

An alternative (complementary) approach to the form of immediacy that characterises fluent comprehension is via features of the psychological processing involved. Now, in section 2.2 above, we observed nine properties that Fodor (1983) puts forward as features of input systems. It does seem that perceptual systems fit this cluster of marks pretty well. I shall now review these Fodorian marks. I shall suggest that fluent comprehension fits the marks to an extent that is comparable to that to which other, less controversial cases of high-level perception fits them.

(i) Fluent comprehension is certainly fast, as perception is. (ii) Fluent comprehension is mandatory, in that we cannot help understanding familiar utterances or inscriptions in our first language. This shows up notably in the Stroop effect (Stroop 1935). Even if your task is merely to identify the colour of the ink in which a word is written, you will inevitably access the meaning of the word, if the word is familiar. Thus interference can arise: to name the colour of the red ink used to write out “blue” will take longer than if that ink writes out “red”. (iii) The ontogeny of language acquisition is widely held to have a characteristic, culturally invariant, pace and sequencing. At about 12 months, all normal individuals start using single words; around 18 months, telegraphic speech emerges; complex grammar at 24 months; etc (cf. Stromswold 1999).

(iv) Language competence shows characteristic and specific patterns of breakdown or deficit. Selective impairments here include agrammatism (loss of complex syntax), jargon aphasia (loss of complex semantics), alexia (loss of object words), and dyslexia (impaired reading and writing), each of which can occur in otherwise cognitively normal individuals (Robbins 2015, §1). Of special relevance to the question of perceptualism vs intellectualism, there is the very specific deficit of meaning deafness, as Pettit (2010) observes. Patients with meaning deafness retain the ability to auditorily identify words, as evidenced by their ability to repeat them correctly and sometimes even write them down. In this respect they differ from patients with the distinct deficit of word deafness, who fail at auditory word recognition. Moreover, individuals with meaning deafness also retain the ability to speak, to write and to read. Their specific deficit is in understanding words that they hear. Kohn & Friedman (1986) provide the following illustration, from a patient HN (cited from Pettit 2010, p. 21):

When asked to point to the cup, HN said “cup, cup, C-U-P, cup. What is it?” Finally, he wrote the word cup, read it aloud and said “Oh, cup,” and immediately pointed to the cup. The words sink and shelf were likewise repeated several times, written, read, and then [the referent] correctly identified (Kohn & Friedman 1986).

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<sup>26</sup> To be sure, there is more to be said here. For now, these rough remarks must do as promissory notes for a fuller treatment of the sort of immediacy that arises in immediately seeing a cup as such and (I am suggesting) in fluent comprehension, in contrast with the immediacy of sudden recollection or insight.

As Pettit argues, meaning deafness is *prima facie* hard to understand on a view of speech comprehension as attained by an extra-perceptual inference. The patient can auditorily identify the word, and knows the meaning of the word (as shown by his or her ability to use it coherently in speech and understand it when written down). The patient has no general cognitive deficits. If normal speech comprehension is a matter of extra-perceptual inference, why cannot this patient put the heard word and known meaning together and infer the meaning of the speech, thus a normal comprehension? In contrast, on a perceptual view, on which, in ordinary fluent comprehension, the assignment of meaning to speech happens no later than at a perceptual or even specifically auditory stage, it makes sense how specific breakdown, internal to this auditory capacity, could prevent an ordinary sort of comprehension of speech. More generally, as Pettit observes, the parallels between meaning deafness and other specific deficits in given domains of high-level perception, such as prosopagnosia (a disruption to the visual identification of faces), reinforces the commonality between ordinary comprehension of speech and high-level perception.

(v) Fodor held informational encapsulation to be the key feature of modularity. The informational encapsulation of a mental function means, roughly, that it is accomplished without benefit of information stored outside of the system; the function is implemented merely by recourse to an internal database, or what is hardwired into the system. Encapsulation implies, but is not implied by, cognitive impenetrability, in the sense of the absence of semantically relevant bearing, upon the execution of the mental function in question, of information residing specifically in *central* cognition (cf. Robbins 2015). A key evidence for the encapsulation (and hence impenetrability) of perception, for Fodor, is the persistence of visual illusions in the face of our recognition of them as misrepresenting how things are. This evidence, although telling, is insufficient to establish cognitive impenetrability all by itself. Even if perceptions are often resilient in the face of beliefs to the effect that they are misrepresentations, there might be various other ways in which beliefs or expectations could influence perception. For an analogy: wishful thinking shows that desires commonly have a systematic effect on belief, an effect that is non-accidentally sensitive to the intentional content of the desires. Belief is, then, not “motivationally impenetrable”. This is so even if there may well be certain specific ways in which motivations cannot influence belief; for example, it is arguably impossible self-consciously to decide to believe something just because one wants to believe it (cf. Williams 1973). Now, as to the question of the plausibility of the cognitive impenetrability of perception, this is a large and far from settled issue in the cognitive sciences. Suffice it for now to note that at least one of warmest defenders of impenetrability, i.e. Pylyshyn (1999), explicitly restricts impenetrability to what he calls “early vision”, i.e., roughly low- to intermediate-level vision, and rejects it for high-level vision, such as seeing things as members of sortal categories. Defending impenetrability for high-level perception would clearly be a considerably more controversial claim than for early vision. To just indicate one sort of putatively conflicting evidence here. In an experiment by Liu (1976), subjects were showed an ambiguous rat/man figure. Some subjects heard in advance a story about rats; they saw the picture as a rat twice as often as control subjects<sup>27</sup>. Again, this is not to deny that our high-level perceptions are quite resilient in the face of conflicting beliefs. Shown a convincing wax replica of Tony Blair, which I know to be a wax replica, I may still have a visual impression of it as of a person, and even as of Blair.

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27 For review of this and related studies, see Brewer & Loschky 2005. Note that this evidence is not invoked here to suggest that low- to intermediate level vision is cognitively penetrated; such an inference would clearly take considerable further argument. The suggestion is rather to the effect that, assuming that there is such a thing as high-level perception (e.g. in the form of perceiving something as a man, or as a rat), then this high-level aspect of perception is susceptible to cognitive penetration.

Turning to comprehension, the situation seems broadly parallel. The manner in which we spontaneously comprehend putative cases of speech or writing exhibits at least a fair amount of persistence in the face of putatively conflicting beliefs. Azzouni provides some nice illustrations:

If a speaker-hearer sees SHE IS RUNNING eroded into the side of a cliff, he experiences it as meaning that someone (female) is running. This experience persists in the face of the knowledge that the shape is only a result of erosion.

Or consider this example. While paging through a book in a foreign language you don't understand (although one with the same alphabet as English), imagine you find "She is running," an accidentally orthographically similar expression of this language, next to a picture of a woman running on a bumpy road. In such a case, even if you have been told by a native speaker that the sentence actually means, "That's a bumpy road," you will still involuntarily experience the English interpretation of the sentence, in addition with the word "she" saturated by the woman running in the picture. (Azzouni 2013, pp. 93-94)

These points do not show that speech comprehension is informationally encapsulated or cognitively impenetrable. Indeed, if we take speech comprehension to deliver a representation of what is said in an utterance, it will plausibly be affected by background beliefs about the context. For example, as Stanley (2005, pp. 131-132) notes, if someone utters:

(4) The policeman arrested the robber. He was wearing a mask.

we tend interpret the pronoun "he" as referring to the robber, not to the policeman. This interpretation surely reflects background beliefs about mask-wearing habits.

(vi) We saw above that the shallow output that Fodor ascribes to input systems allows that we perceive things as members of kinds; in particular, as members of such basic level categories as *cat*, *tree*, *person*, etc. (The shallowness, or constrainedness in the sort of information it can deliver, resides, for Fodor, in part in the fact that perception will not deliver representations of things as answering to such more rarefied theoretical categories as *proton*). Does this extend to comprehension? It might seem not, since it can deliver information about whatever people happen to talk about, which might be anything. However, as Fodor notes (1983, pp. 88-89), there can still be a constraint here, in that the spoken contents presented by comprehension (at least so far as it is a good candidate for being perceptual in character) is limited to contents given as what is said in an utterance. In other words, comprehension, in so far as it is a candidate for perceptual status, may be limited to conveying information about what is more or less literally said, as opposed to what was merely implicated. Indeed, as discussed in section 2.1, its output may on occasion be even more limited than that, yielding information only on the character of uttered sentences, not on what is said therein. As suggested in section 2.2, such representations of the character expressed by some utterance are arguably non-conceptual, in that the subject need not possess concepts, deployable in her thinking, corresponding to those used in specifying the content of the representation. Thus, even if shallowness of output were construed to involve a limitation on outputs to ones with nonconceptual content (cf. Carruthers 2006, p. 4), a case can be made that at least some representations of meaning properties, delivered by ordinary comprehension, share this trait. I will address the three remaining Fodorian marks of modularity only very briefly and superficially. (vii) Domain specificity, i.e., roughly, the specialization of the process to answer questions of a specific kind, and be kicked into operation by a limited range of stimuli. As

indicated, this can be seen to apply to comprehension, in so far as it is restricted to giving answers to the question what someone is saying, and to be triggered by linguistic stimuli. (viii) Limited conscious access to interlevels of representation. Speech comprehension depends inter alia on discerning the syntactic structure of the uttered sentence, and conscious access to this syntactic structure will often be limited. This gives one reason to think this mark applies to comprehension. (ix) Dedicated neural hardware, or localizability. Although some brain regions of great importance to comprehension are well established, such as Broca's area and Wernicke's area, the precise role of these areas, and the importance of other brain regions, are matters currently intensely investigated. I will here simply reserve judgment on how the case for neural localizability of comprehension compares with that for high-level perception. To sum up this quick review of the Fodorian marks of input systems: it seems then that fluent comprehension meets most or perhaps even all of them to an extent that is comparable to the extent to they are met by such high-level perceptual states as when we see things as members of basic level categories (as trees, or cups, or people, etc.). However, are there any other features that could be invoked here to argue that, even so ordinary processes of fluent comprehension are not perceptual?

Recently, Block (2014) has argued that a key feature of perceptual processes is their susceptibility to sensory adaptation. Sensory adaptation shows up in a range of possible sensory aftereffects, and associated illusions. One familiar example is the waterfall illusion. After having looked at unidirectional motion for a good while, say at the motions of the falling waters of a waterfall, a stationary object will tend to elicit the percept as of movement in the opposite direction. This is an example of the motion aftereffect, which exemplifies sensory adaptation to the perception of movement. Another example is the tilt aftereffect. After having looked at a pattern of left-tilting rectangles for a while, a pattern of upright rectangles will elicit a percept as of rightwards tilt.

Block describes evidence suggesting that sensory adaptation extends to at least some forms of high-level perception; specifically, to perceptions of faces as happy, sad, frightened, or similarly emotionally engaged. After having looked at an unambiguously angry face for a while, an ambiguous face, capable of looking either frightened or angry, is likely to be perceived as frightened, and vice versa if an unambiguously frightened face is looked at for some time before viewing the ambiguous face. Interestingly, this effect can happen even if the ambiguous face differs in various lower-level features from the initially viewed unambiguous face. This suggests that the effect is not merely due to the representation of the some constellation of lower-level features (cf. Butler, Oruc et al. 2008). For Block, this is central to the case for regarding would-be perception of faces as being in emotional states as genuinely perceptual. Now, does sensory adaptation extend to fluent comprehension? There is, I will suggest, some evidence indicating that an aftereffect akin to that discussed by Block for emotion perception arises here. The evidence is associated with the phenomenon known as semantic satiation, viz. that words somehow "lose their meaning" for subjects after several repetitions. The psychologist Titchener described it as follows:

Repeat aloud some word – the first word that occurs to you; house for instance – over and over again; presently the sound of the word becomes meaningless and blank; you are puzzled and a morsel frightened as you hear it. . . When the word 'house' becomes meaningless with repetition, it is because the bare sound grows more and more vivid and dominant; like the nestling cuckoo, it drives out its normal associates; and these associates, the carriers of its meaning, sink lower and lower into the obscurity of the background. So the meaning almost literally, drops off, falls away. (Titchener 1916, p. 26. Cited from Tian & Huber 2010, pp. 269-277)



The repetition of presentation of a word in semantic satiation is akin to the prolonged staring at a stimulus, e.g. with unidirectional movement, in classical cases of sensory adaptation. The tendency for meaning thereby to “drop off, fall away”, that Titchener talks about, has been documented in tasks that require the subject to join up the word with its meaning. For example, a word such as “vegetable” may, after a given number of repetitions, be paired with another word that may or may not be related to it in a certain semantically significant way, say that of standing to it as exemplar to category. The subject’s task is to decide whether or not the words are so related, pressing “yes” for “vegetable – cabbage”, say, and “no” for “vegetable – oxygen”, say. It has been found that, if “vegetable” has recently been repeated a few times, say 2-4 times, subjects are *quicker* at such tasks than they are for the same task with pairs of words semantically unrelated to any just repeated, e.g. with such pair as “sport-football” (calling for “yes”) or “vehicle-pepper” (calling for “no”). This is a priming effect, i.e. a facilitation of performance for a targets identical to or semantically closely related to ones just presented. However, with a further increase in number of repetitions, this priming effect has been found to diminish or even be reversed, becoming a “negative priming”. Thus Tian and Huber (2010) found that the priming effect went negative after 5-7 repetitions, and even more so after 8-10 repetitions<sup>28</sup>. Such “negative priming” corresponds closely to a sensory aftereffect. Huber describes it as a “cognitive aftereffect”:

Similar to visual aftereffects that produce a positive or negative afterimage as a function exposure duration, cognitive aftereffects exist that can enhance or cause deficits for primed stimuli as a function of prime duration. (Huber 2008, p. 343)

In calling it “cognitive”, however, Huber is emphatically not intending to suggest that the kind of process involved here is relevantly different from that in classic cases of sensory adaptation, such as the motion aftereffect:

This [i.e. to use the phrase “cognitive aftereffect”, AN] is not to say that cognitive aftereffects involve cognition per se or are due to a strategic thought process. Instead, the claim is simply that the dynamics commonly observed for low-level perception can exist for other types of processing. In this manner, *cognitive aftereffect* is used as a catch-all phrase for all sorts of aftereffects that exist in the process of identification. (Huber 2008, p. 343)

The work of Huber and collaborators, then, on semantic satiation and other related forms of positive and negative priming, provide one source of evidence that something very much like sensory adaptation applies even to comprehension.

Price (1953) described our everyday recognition of things around us, such as when we recognise an airborne object flapping past as a bird, in the following terms: “It is at once thought and perception. It is a form of cognition in which ideas or concepts are somehow blended with immediate experience” (Price 1953, p. 90)

I find this a suggestive gloss on fluent comprehension. Fluent comprehension is, at least often, thought, in that often involves grasping a proposition as what is said in an utterance. In grasping this proposition, we are enabled to entertain, suppose, question, or judge true

## 6. Conclusion

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<sup>28</sup> An earlier study, Black 2001, found a decrease in (positive) priming with increasing repetitions, but did not document negative priming.

the proposition in question. We can and do entertain it in thought. At the same time, fluent comprehension has a range of hallmarks of perception – at least of high-level perception. It fits at least most of the Fodorian marks of input systems about as well as other, less controversial cases of high-level perception. There is evidence indicating that fluent comprehension exhibits, in the guise of semantic satiation, a form of aftereffect akin to sensory adaptation. Fluent comprehension yields, in a certain phenomenologically immediate way, roughly gestured at in the last section, representations of meaning properties that are phenomenally objectually unified with perceptually presented lower-level properties, such as loudness and pitch. In sum, this gives some grounds for thinking that fluent comprehension just is a special case of high-level perception. The best bet on the question whether fluent comprehension is a case of thought or perception may be that it is both.

However, I do not here purport to have offered a case for perceptualism as preferable, all-things-considered, to its negation. For one thing, I have not considered objections to perceptualism, such as O’Callaghan’s (2011) objection from homonyms<sup>29</sup>. For another, I have not addressed the question whom, if any, of the perceptualist and the intellectualist that has the burden of proof. If Siegel’s and Bayne’s abductive, contrast-based argument for liberal perceptualism, from which we have departed, can be regarded as putting the burden on the intellectualist, then our argument in sections 2-5 here can be read making a case that the intellectualist, at least so far, has failed to lift that burden. Yet it might be asked why the burden should not rest instead on the perceptualist: why not hold that it is up to her positively to show fluent comprehension to be perceptual? I do not purport to have lifted that burden here. Firstly, I have been working on the supposition that some forms of high-level perception, e.g. seeing things as cups or trees, or people as happy or sad, are genuinely perceptual. Secondly, I have not argued that the three aspects of immediacy discussed in the last section – viz. (i) the phenomenological feature of exhibiting a certain, roughly indicated sort of immediately delivered, objectual unity between certain higher-level features (in our case: that of meaning such-and-such) and low-level, uncontroversially sensible properties, (ii) being a good fit for the Fodorian marks of input systems, and (iii) exhibiting such aftereffects as are found in semantic satiation – add up to a sufficient condition for perceptual status, or even add up to such a status conditionally the indicated cases of high-level perception being genuinely perceptual. I have merely suggested these three aspects speak in favour of that classification. The further defence of these suppositions must however await another occasion<sup>30</sup>.

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<sup>29</sup> For a recent perceptualist response to the objection from homonymy, see Brogaard *forthcoming*.

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